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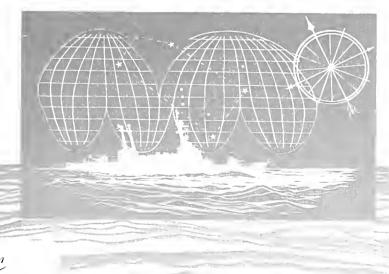
# OCEANOGRAPHIC REPORT No. 26

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NORTH PACIFIC OCEAN STATION NOVEMBER

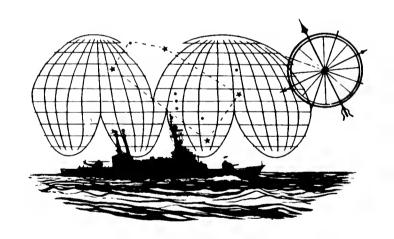
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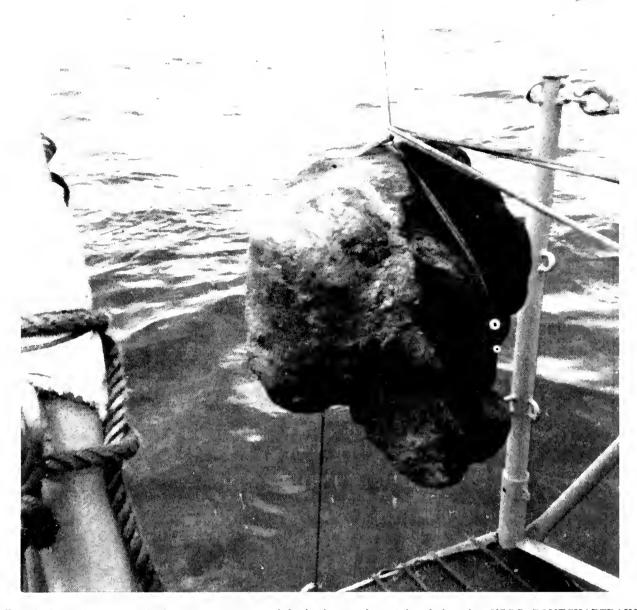
# REPORT No. 26 cg 373-26

OCEANOGRAPHIC OBSERVATIONS NORTH PACIFIC OCEAN STATION NOVEMBER 30°00′ N., 140°00′ W.

March 1967-March 1968



David M. Husby



Frontispiece: An extremely large manganese nodule inadvertently retrieved by the USGC PONTCHARTRAIN (WHEC-70) during a deep Nansen cast on Ocean Station NOVEMBER in 3749 meters of water in September 1967. This specimen, weighing approximately 240 Kg., was entangled in the oceanographic cable which was accidentally laid on the bottom. Scientists from the Scripps Institution of Oceanography subsequently identified the rock as probably the largest manganese nodule ever found.

### **ABSTRACT**

This report contains the observed and interpolated temperature and salinity data plus the computed sigma-t, geopotential anomalies and sound velocities for 195 oceanographic stations occupied by U. S. Coast Guard Cutters at Ocean Station NOVEM-BER (centered at 30° N, 140° W) between 20 March 1967 and 31 March 1968. The particular cruises were the CGC KLAMATH, 20 March-8 April 1967; CGC PONTCHARTRAIN, 2-19 May 1967; CGC WINONA, 15 June-1 July 1967; CGC PONTCHAR-TRAIN, 23 July-13 August 1967; CGC PONTCHARTRAIN, 3-24 September 1967; CGC TANEY, 15 October-5 November 1967; CGC KLAMATH, 26 November-17 December 1967; CGC TAN-EY, 7-28 January 1968; CGC WACHUSETT, 28 January-18 February 1968; CGC TANEY, 18 February-10 March 1968; and the CGC PONTCHARTRAIN, 10-31 March 1968. Daily casts of 13-14 Nansen bottles were made to a depth of 1500 meters when weather conditions permitted. In addition, sampling was successfully extended to near the bottom on at least one station during each patrol.



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# Oceanographic Observations North Pacific Ocean Station NOVEMBER 30° 00′ N., 140° 00′ W., March 1967 - March 1968

#### By David M. Husby

#### INTRODUCTION

The U.S Coast Guard has been conducting a long-term series of oceanographic observations at Ocean Station NOVEMBER (30°00' N., 140°00′ W.) since July 1966 (Husby, 1968). Investigations of oceanographic conditions in this vicinity had been made prior to this time by other organizations (Cochrane, 1950 and Thomas and Amstutz, 1966). The location of NOVEMBER in relation to the other Ocean Stations in the world is shown in figure 1. The sampling program originally consisted of daily Nansen bottle casts to 1500 meters on alternate 21-day patrols. Since 7 January 1968 the program has been expanded to daily Nansen bottle casts on every patrol. Serial observations of temperature and salinity are made at all stations.

This report contains the oceanographic station data from 195 stations at NOVEMBER between March 1967 and March 1968. The cruises were the CGC KLAMATH, 20 March-8 April 1967; CGC PONTCHARTRAIN, 2-19 May 1967; CGC WINONA, 15 June-1 July 1967; CGC PONTCHARTRAIN, 23 July-13 August 1967; CGC PONTCHARTRAIN, 3-24 September 1967; CGC TANEY, 15 October-5 November 1967; CGC KLAMATH, 26 November-17 December 1967; CGC KLAMATH, 26 November-17 December 1967; CGC TANEY, 7-28 January 1968; CGC WACHUSETT, 28 January-18 February 1968; CGC TANEY, 18 February-10 March 1968; and the CGC PONTCHARTRAIN, 10-31 March 1968.

#### **PROCEDURES**

The Ocean Station Vessels are normally required to maintain their position within a ten-

mile square grid centered on Ocean Station NOVEMBER (30°00′ N., 140°00′ W.) while engaged in oceanographic operations. Occasionally, the vessels are requested to move their position due south to about 29°00′ N., for periods of from one to five days, for other operational commitments. The bathymetry in the vicinity of NOVEMBER is shown in figure 2.

For the daily casts the desired sampling depths are surface, 10, 30, 50, 75, 100, 150, 200, 300, 400, 600, 800, 1000, and 1500 meters. For deep casts, an additional cast was made with desired sampling depths of 2000, 2500, 3000, 3500, 4000, 4500, and 4600 meters (near bottom). A pair of protected, deepsea reversing thermometers was placed in each Nansen bottle and, in addition, on five bottles from 200 to 1500 meters, an unprotected thermometer was paired with the two protected ones for the thermometric determination of the sampling depths. Depths which were determined thermometrically are preceded by a "T" in the station data. Field observations of temperature were transmitted via radio teletype to the Coast Guard Oceanographic Unit, Washington D.C. for real-time data processing and quality control. Procedures used in the recording and processing of the temperature data essentially follow those outlined in U.S. Naval Oceanographic Office Pub. No. 607 (Third ed., 1968) and LaFond (1951). The Coast Guard Oceanographic Unit uses a Digital Equipment Corporation PDP-5 computer to process the temperature data.

Salinity samples were drawn from each Nansen bottle and the salinity content of each sample determined aboard ship using inductive salinometers. Duplicate water samples were drawn from the surface and 1500 meter Nansen bottle at each station and delivered to the Coast Guard Oceanographic Unit for quality control when the vessels returned to port. These samples were run by a different operator and on a different instrument and it was found that, on the average, 89 percent of the samples differed from the ship's values by less than  $0.010^{\circ}/_{00}$ . The samples were higher in salinity than the ship's values by an average of only  $.004^{\circ}/_{00}$  after about a month's period.

Processed temperature and salinity data were recorded on form NODC-EXP-3167/25 (3-64), Physical and Chemical Data form for oceanographic stations and delivered to the National Oceanographic Data Center (NODC) for archiving and the preparation of listings. The interpolated temperature and salinities for standard depths, sigma-t values, geopotential anomalies ( $\triangle$ D) and sound velocities were computed by NODC and listings provided for the preparation of Tables I-XI.

#### CRUISE NARRATIVES

The CGC KLAMATH occupied 17 oceanographic stations during her 20 March—8 April 1967 patrol. The majority of the casts had maximum useful depths between 1350 and 1950 meters. Two casts had maximum sampling depths of 1113 and 1123 meters due to extremely large wire angles. One deep cast was accomplished, with a maximum sampling depth of 3778 meters in a water depth of 4389 meters. One shallow station has no salinity values due to an error by the operator of the salinometer. Four stations were occupied 90 miles south of O.S. NOVEMBER grid. The distribution of the other 13 stations about the center of NOVEMBER is shown in figure 3. The data are listed by NODC as Ref. No. 31–1079 and as Table I in this report.

The CGC KLAMATH also occupied a line of 18 oceanographic stations from Ocean Station NOVEMBER to the coast of Oregon on the return trip to port. These stations make up a portion of Standard Monitoring Section 4 and the data will be published at a later date. The data are also listed by NODC as Ref. No. 31–1079.

During the period 2-19 May 1967, the CGC

PONTCHARTRAIN occupied 17 oceanographic stations on Ocean Station NOVEMBER. The majority of these stations had maximum useful sampling depths between 1400 and 1700 meters. One cast reached only to 991 meters due to a very large wire angle. One deep cast was accomplished with a maximum sampling depth of 3669 meters in a water depth of 4114 meters. Four stations were taken 90 miles south of NOVEMBER and the distribution of the other 13 stations about the center of NOVEMBER is shown in figure 4. The data are listed by NODC as Ref. No. 31–1080 and as Table II of this report.

The CGC PONTCHARTRAIN also occupied 11 stations on Standard Monitoring Section 6 on the return voyage from O.S. NOVEMBER. The data are also listed by NODC under Ref. No. 31–1080 but will be published at a later date.

The CGC WINONA successfully occupied 17 oceanographic stations during the 15 June–1 July 1967 patrol on Ocean Station NOVEMBER. All seventeen stations had maximum useful depths between 1350 and 1650 meters. No deep cast was accomplished as the ship had difficulties with the winch brake. One station was taken 90 miles south of Ocean Station NOVEMBER and the distribution of the other 16 about the center of NOVEMBER is shown in figure 5. The data are listed by NODC as Ref. No. 31–1083 and as Table III in this report.

The entire 24 stations of Standard Monitoring Section 4 were occupied by the CGC WI-NONA on the return trip from NOVEMBER. These data are also listed by NODC as Ref. No. 31–1083, but will be published at a later date.

The CGC PONTCHARTRAIN successfully occupied 21 oceanographic stations during the 23 July-13 August patrol at Ocean Station NOVEMBER. All casts except one had maximum useful depths of between 1400 and 1530 meters. The one exception was to only 1296 meters due possibly to a large subsurface current. This station was taken 90 miles south of Ocean Station NOVEMBER, as were two other stations. The distribution of the other stations about the center of NOVEMBER is shown in figure 6. One deep cast was accomplished, with a maximum sampling depth of 4400 meters in

a water depth of 4663 meters. The data are listed by NODC as Ref. No. 31-1142 and as Table IV of this report.

The CGC PONTCHARTRAIN also participated in cooperative deep current observations conducted by personnel from the Scripps Institution of Oceanography. Two free-vehicle type current meters were used for six separate drops with five recoveries. The current meter array consisted of a fiberglass-aluminum pole with float connected by a nylon line to a secondary float to which was connected the current meter instrument and ballast weight. Each pole-float contained a radio beacon, battery and antenna, a radar reflector, and a bright orange flag. Little or no success was experienced with the radio beacons and radar reflectors. The most valuable recovery aid turned out to be the bright orange flag, which was sighted up to 315 miles distant. The current observations are retained by the Scripps Institution of Oceanography, La Jolla, California.

The CGC PONTCHARTRAIN again was assigned to Ocean Station NOVEMBER patrol for the period of 30 August–29 September 1967. During this period 20 oceanographic stations were occupied. All twenty stations had maximum useful depths between 1400 and 1630 meters. One deep cast was accomplished, with a maximum sampling depth of 3265 meters in a water depth of 3749 meters. One station was occupied 60 miles south of Ocean Station NOVEMBER and one 90 miles south; the distribution of the other stations about the center of NOVEMBER is shown in figure 7. The data are listed by NODC as Ref. No. 31–1163 and as Table V of this report.

In cooperation with the Scripps Institution of Oceanography, six free-vehicle current meters were launched during this patrol and five recovered. Approximately 630 hours of bottom current observations were obtained. These data are retained by the Scripps Institution of Oceanography, La Jolla, California.

The CGC PONTCHARTRAIN also occupied the entire 24 stations of Standard Monitoring Section 6 on the return trip to port. These data are also listed by NODC as Ref. No. 31–1163, but will be published at a later date.

There was an interesting occurrence on the

ship's first attempt at a deep cast on Ocean Station NOVEMBER. A miscalculation was made in the depth of water to the bottom and 500 meters of cable were laid on the bottom. When the cast was retrieved, a large boulder, weighing approximately 240kg, and with dimensions of about 36 inches in height and about 24 inches in breadth, was entangled in the cable and was brought to the surface. The specimen was subsequently given to the Scripps Institution of Oceanography for analysis and was identified as an extremely large manganese nodule. (see frontispiece).

During the 15 October-8 November patrol of the CGC TANEY on Ocean Station NOVEMBER, a total of 21 oceanographic stations were occupied. With the exception of one cast, all casts had maximum useful depths between 1450 and 1650 meters. One station had a maximum sampling depth of only 552 meters due to the failure of a Nansen bottle to release its messenger. One deep cast was accomplished, with a maximum sampling depth of 4270 meters in a water depth of 4390 meters. This distribution of the stations about the center of NOVEMBER is shown in figure 8. The data are listed by NODC as Ref. No. 31-1178 and as Table VI of this report.

The CGC TANEY also occupied 19 oceanographic stations on Standard Monitoring Section 5 on the return trip NOVEMBER. These data are also listed by NODC as Ref. No. 31–1178, but will be published at a later date.

The CGC KLAMATH occupied 13 oceanographic stations during the 26 November–17 December 1967 patrol on Ocean Station NO-VEMBER. All stations had maximum useful depths between 1350 and 1950 meters. One deep cast was accomplished, with a maximum sampling depth of 3891 meters in a water depth of 4244 meters. The distribution of the stations about the center of NOVEMBER is shown in figure 9. Two stations were occupied approximately 60 miles south of Ocean Station NOVEMBER. The data are listed by NODC as Ref. No. 31–1185 and as Table VII of this report.

The CGC TANEY occupied 21 oceanographic stations during the 7-28 January 1968 patrol at Ocean Station NOVEMBER. With

the exception of four casts, all casts had maximum useful depths between 1250 and 1600 meters. The four shallow casts had maximum useful depths of 372, 693, 966, and 997 meters, due mainly to bottles failing to release messengers. Adverse weather caused difficult operating conditions and a difficulty in maintaining station, as can be seen in figure 10 which shows the distribution of stations about the center of NO-VEMBER. Four stations were taken about 90 miles south of Ocean Station NOVEMBER. One deep cast was accomplished with a maximum sampling depth of 3964 meters in a water depth of 4114 meters. All these data are listed by NODC as Ref. No. 31-1200 and as Table VIII of this report.

During the 28 January-18 February 1968 patrol at Ocean Station NOVEMBER, the CGC WACHUSETT occupied 10 oceanographic stations. All casts had maximum useful depths between 1300 and 1520 meters. A deep cast was not accomplished due to a limited amount of cable available aboard ship. The distribution of the stations about the center of NOVEMBER is shown in figure 11. Daily casts were not accomplished during the entire three week period due to adverse weather conditions. The data are listed by NODC as Ref. No. 31–1205 and as Table IX of this report.

A total of 19 oceanographic stations were occupied by the CGC TANEY during the 18 February-10 March 1968 patrol at Ocean Station NOVEMBER. With the exception of two casts all stations had maximum useful depths between 1350 and 1950 meters. These two exceptions had maximum useful depths of only 449 and 861 meters due to the failure of a bottle to trip and the pretripping of a bottle, respectively; both these malfunctions being probably caused by very large wire angles. No deep cast was accomplished during this patrol. One station was taken outside the Ocean Station grid, about 90 miles directly south of station and the distribution of the other stations about the center of NOVEMBER is shown in figure 12. The data are listed by NODC as Ref. No. 31-1209 and as Table X of this report.

On 19 February 1968 the CGC TANEY performed the mooring of the Scripps Institution of Oceanography oceanographic raft. The raft was moored at 30°01.3 N., 139°56.6 W., in

4300 meters of water. The raft's position was checked throughout the remainder of the patrol by celestial observations and it was found that the raft was not drifting and that there was a 0.3 knot current setting eastward.

During the 10–31 March 1968 patrol by the CGC PONTCHARTRAIN, a total of 19 oceanographic stations were occupied. All stations had maximum useful depths between 1350 and 1800 meters. One deep cast was accomplished with a maximum sampling depth of 4213 meters in a water depth of 4480 meters. Three stations were occupied about 60 miles south of Ocean Station NOVEMBER and the distribution of the other stations about the center of NOVEMBER is shown in figure 13. The data are listed by NODC as Ref. No. 31–1249 and as Table XI of this report.

The CGC PONTCHARTRAIN also occupied 22 of the 24 stations on Standard Monitoring Section 6 between Ocean Station NOVEMBER and Long Beach, California. These data are also listed by NODC as Ref. No. 31–1249, but will be published at a later date.

#### COOPERATIVE PROJECTS

Occasionally other observations are made on station at the request of and in cooperation with other government agencies or private institutions. In the past, these programs have included the following:

(1) Deep Free Vehicle Observations— (Scripps Institution of Oceanography, La Jolla, California)

Deep Current observations have been made at Ocean Station NOVEMBER using a free vehicle equipped with a recording current meter. The vehicle is deployed from 2–5 days, returns to the surface automatically and is retrieved. It has employed an underwater camera. This research is sponsored by the National Science Foundation and is being conducted by Dr. Richard Schwartzlose. All data are retained at the Scripps Institution of Oceanography.

(2) Survey of Fallout Cesium in the Pacific Ocean—(Scripps Institution of Oceanography)

Since 1966 several Ocean Station Vessels on Ocean Station NOVEMBER have collected water samples and tested sampling equipment for the determination of the distribution of trace radioactive Cesium in the Pacific. The sampling program usually consists of four hydrocasts to 850 meters on station with a four hour soak time. Also, a sampling "fish" is towed two hours per day while enroute port at normal cruising speed. This research is sponsored by the Atomic Energy Commission and is being conducted under the direction of Dr. T. R. Folsom.

(3) Environmental Sampling—(U.S. Naval Radiological Defense Laboratory, San Francisco, California)

Since September 1965 various Ocean Station Vessels have collected rainwater samples and a surface sea water sample for analysis of fallout distribution.

(4) Carbon Dioxide Equalization Observations—(University of Washington)

This program was initiated in spring of 1967 and consists of Ocean Station Vessels collecting volumes of water for an analysis equilibrating CO<sub>2</sub> in the atmosphere with CO<sub>2</sub> in the surface waters of the North Pacific. This research is being sponsored by the National Science Foundation and the Office of Naval Research and is being conducted by scientists at the University of Washington.

#### DISCUSSION

To illustrate the temporal or gross seasonal changes in water properties at different levels at Ocean Station NOVEMBER plots of water temperature versus time (figures 14, 15, and 16) and salinity versus time (figures 17, 18, and 19) were constructed. The diurnal changes in the surface layers have been effectively eliminated, as the majority of the 195 stations were occupied at the same time each day (2000 hours Greenwich Mean Time or 1100 hours Zone Time). The effects of spatial variability are revealed in the plots of the data from the 32 stations which were occupied from 60-90 miles south of Ocean Station NOVEMBER. These data are indicated in figures 14–19 by the large black dots on the data points. These data reveal that a water mass of significantly warmer temperature and higher salinity was present, at least in the upper 400 meters, just 60 miles to the south.

Figures 14–19 consist of plots of temperature and salinity versus time at the surface and 100, 200, 300, 400, 600, 800, 1000, and 1500

meter levels. The salient feature of the temperature versus time plots is the marked seasonal cycle with a heating period from March to September 1967 and then a cooling period from September 1967 to March 1968. The maximum surface temperatures were observed in September in the range of 24–25°C. The surface temperature dropped to a minimum of less than 18°C in March 1968. During the month of November 1967, the surface temperature appears to have dropped nearly 4.0°C and was the most pronounced change which occurred during the observational period. During the period from December 1967 to January 1968, a convective process raised the 100 meter temperature from 17°C to almost 19°C. The convective mixing appears to have been effective to the 400 meter level raising the temperature from about 7.90°C in December to about 8.40°C in January. From January 1968 to March 1968 there was a gradual decrease of temperature at all levels from the surface to 400 meters. At the 600 meter level and below there was little change in the temperature structure between March 1967 and March 1968.

The salinity versus time plots (figures 17. 18, and 19) reveal a somewhat similar seasonal cycle in the upper 200 meters, however there were anomalous conditions observed during the summer of 1967. Ignoring those stations which were occupied 60-90 miles to the south of Station NOVEMBER, (those Ocean points with large black dots), the surface salinity appears to be increasing from March 1967 to June 1967, however there were a series of four stations occupied between 9-14 May at which the salinity showed a very significant decrease (nearly  $0.40^{\circ}/_{00}$ ). These low salinities were associated with relatively low temperatures (17.40° C.) and it appears that there was an influx of a Subarctic type water into the vicinity during this period. The surface salinity reached a maximum of nearly  $35.30^{-0}/_{00}$ during early June 1967, followed by a sudden, inexplicable decrease in late June. A minimum was observed in the surface salinity in July of about 34.75 % followed by anomalous increases in early August to values approaching 35.40 % oo. After August there appeared to be a trend

toward a seasonal cycle associated with the maximum heating of the surface layers. From September to November 1967 the surface salinity showed a gradual increase from about 35.10 to about 35.25  $^{0}/_{00}$ . This second maximum was observed in October. From November 1967 to March 1968 there was a gradual decrease in surface salinity to a low of about  $34.70 \, ^{0}/_{00}$ .

The salinity at the 100 and 200 meter levels showed a considerable increase from December 1967 to January 1968 due to the convective mixing mentioned above. Since the high temperature at the surface creates a stable structure, it appears that the increase in salinity at the surface promotes the convective process at Ocean Station NOVEMBER. However, from January to March 1968, there was a decrease of salinity in the upper 200 meters. The salinity below 400 meters showed little variability during the observational period.

#### VERTICAL PROPERTY DISTRIBUTION

Envelopes of temperature and salinity versus depth have been constructed for each cruise to Ocean Station NOVEMBER to show the vertical structure in the water column and to delineate the gross seasonal changes in properties (figure 20–41). These envelopes reveal the basic thermohaline stratification of properties at Ocean Station NOVEMBER: (1) a surface mixed layer, varying from 10 to 150 meters in depth (2) the main thermocline from 200 to 600 meters in depth, and (3) the North Pacific deep water below 600 meters.

Ocean Station NOVEMBER is located in the Subtropical Region of the Pacific Ocean which is characterized by an excess of evaporation over precipitation. The salinity of the water is greatest at the surface and decreases to a minimum between 200 and 800 meters in depth (Tully, 1964). There is no permanent halocline in this region and therefore the stability of the density structure is solely dependent on the temperature structure. The envelopes of temperature versus depth (figures 20-30) illustrate the response of the surface waters to the seasonal cycles of heating and cooling. From March 1967 to May 1967 the effects of winter cooling were evidenced. The surface homogeneous layer (18.0–18.5° C. water) reached a depth of about 100 meters in March and by

May had increased in depth to nearly 150 meters and the temperature was in the range of 17.9-18.9° C. with the exception of four anomalous stations where the temperatures dropped to about 17.4° C. During the period from June 1967 to September 1967, the summer heating established a seasonal thermocline in the upper 100 meters. In September when the maximum surface temperatures of 24.5° C, were reached. there was a negative gradient of almost 7.0° C. in the upper 100 meters. In October 1967, with the advent of a cooling season, the surface temperatures decreased nearly 1.0°C and a shallow mixed layer was formed of about 30 meters in depth. By December 1967 the surface temperature had decreased to the range of 20.0-21.5° C. and the homogeneous layer had increased in depth to about 50 meters. In January 1968 the mixed layer had reached a depth of about 100 meters with temperatures in the range of 19.0-20.5° C. From January to March 1968 the temperature and extent of the mixed layer changed very little, while the dominant process appeared to be an increase of the temperature in the depths between 100 and 400 meters. Little variability was observed in the temperature of the water at the levels below 400 meters. From 600 meters to 1500 meters the temperature showed a gradual decrease from about  $5.00^{\circ}$  to  $2.65^{\circ}$ C.

The dominant feature of the salinity versus depth envelopes (figures 31-41) is the salinity minimum located between 200 and 600 meters in depth. The sampling program of sampling at discrete levels obviously does not delineate the continuous vertical structure, but several major features are evident from the salinity envelopes. There is a salinity minimum of about 34.05-34.10  $^{0}$ /<sub>00</sub> located at 200 meters. This feature is present during most of the year except during the late winter, January—February, when the convective mixing increases the salinity at this level to the range of 34.20-34.40  $^{\circ}$ /<sub>00</sub>. Associated with the salinity minimum at 200 meters there is an intermediate maximum at 300 meters of about  $34.10-34.15 \text{ }^{\circ}/_{\circ \circ}$ .

A permanent feature of the vertical salinity structure at Ocean Station NOVEMBER is the minimum value between 400 and 600 meters. This salinity minimum ranges between 33.95 and  $34.05\,^{0}/_{00}$  and identifies the upper limit of the North Pacific Intermediate Water at NO-VEMBER. Below 600 meters the salinity increases with depth to a value of about  $34.56\,^{0}/_{00}$  at 1500 meters.

#### SUMMARY

Ocean Station NOVEMBER is located in the Subtropical Region at the eastern North Pacific Ocean which is known to be under the influence of a clockwise gyral motion. In the vicinity of NOVEMBER the flow is so slow, however, that the near surface waters have time to become adjusted to the local atmospheric climate (Tully, 1964). At the latitude of NO-VEMBER the seasonal range of temperature is relatively small, 18 to 24°C, and the temperature of the surface waters is maintained at a high level. The dominant climatic influence in the vicinity of NOVEMBER is the excess of evaporation over precipitation. The excess evaporation increases the salinity of the surface waters and therefore increases the density, which, in turn, would promote convective mixing.

The results of the oceanographic observations at Ocean Station NOVEMBER between March 1967 and March 1968 revealed a stable temperature structure during the entire period with a maximum surface temperature of 24.5°C in September and a minimum of about 17.8°C in March 1968. A convective mixing process was evidenced in January and February 1968 by the rise in temperature at the 100, 200, 300, and 400 meters levels. Due to the stable temperature structure at NOVEMBER, this increase in temperature at the 100–400 meter levels could be explained only by a convective mixing process or by advection. Due to the increase of salinity at these levels during this period the convective mixing process, caused by an increase in surface salinity, is the most likely explanation.

Two minima were observed in the vertical salinity distribution during the spring and summer months, one at about 200 meters and the other at about 500 meters. This situation was explained by Sverdrup (1942) as the result of the oceanic circulation. The upper minimum was identified as the result of the North Pacific Central Water spreading over the Subarctic Water and the lower minimum as the direct continuation of the Intermediate Water flowing in the eastern gyral of the North Pacific Ocean. The upper minimum is destroyed during the winter months by the convective mixing which increases the salinity.

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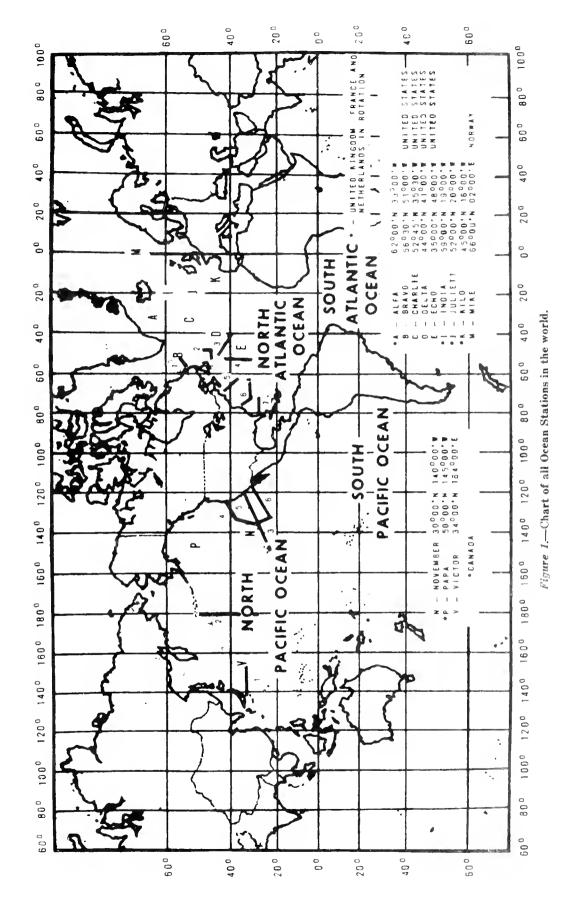
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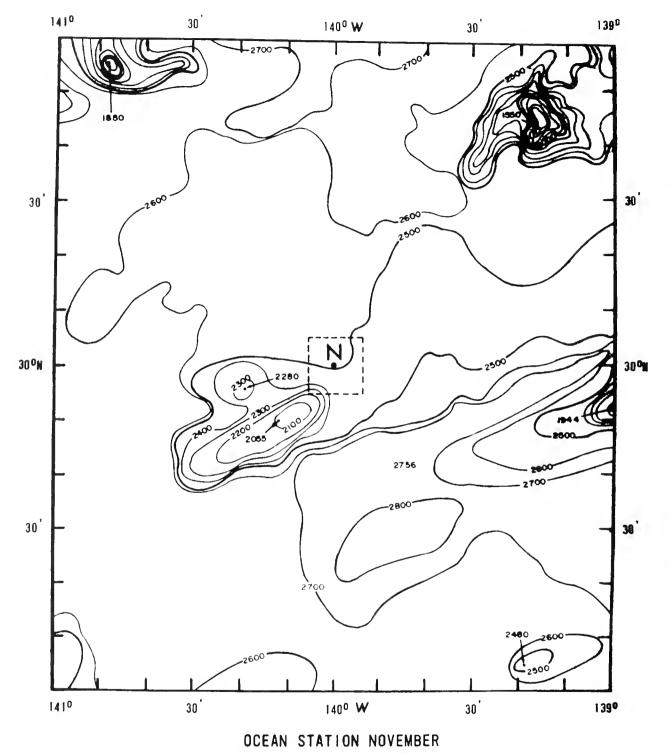


Figure 2.—Bathymetry in the vicinity of Ocean Station NOVEMBER (Contour interval is 100 fathoms).

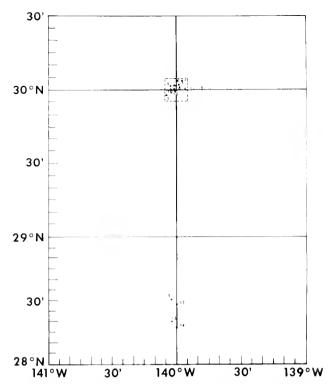


Figure 3.—Positions of oceanographic stations taken by USCGC KLAMATH during 20 March-8 April 1967 at Ocean Station NOVEMBER.

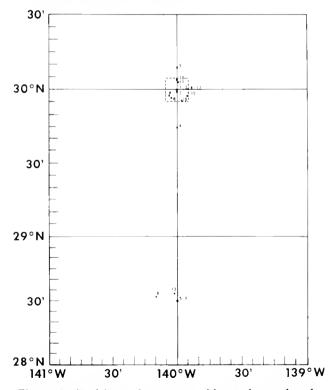


Figure 4.—Positions of oceanographic stations taken by USCGC PONTCHARTRAIN during 2–19 May 1967 at Ocean Station NOVEMBER.

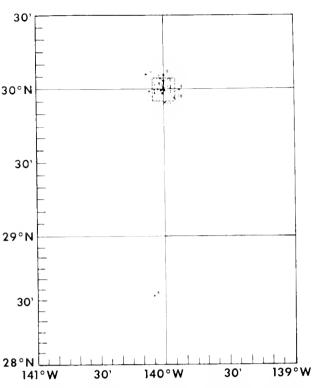


Figure 5.—Positions of oceanographic stations taken by USCGC WINONA during 15 June-1 July 1967 at Ocean Station NOVEMBER.

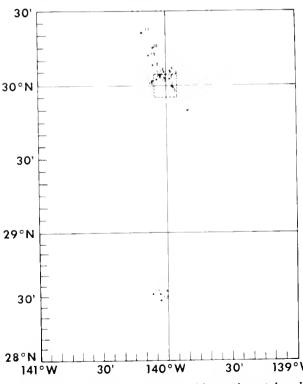


Figure 6.—Positions of oceanographic stations taken by USCGC PONTCHARTRAIN during 23 July-13 August 1967 at Ocean Station NOVEMBER.

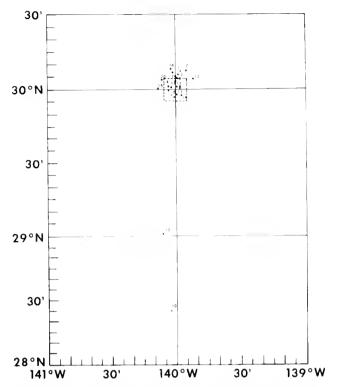


Figure 7.—Positions of oceanographic stations taken by USCGC PONTCHARTRAIN during 3-24 September 1967 at Ocean Station NOVEMBER.

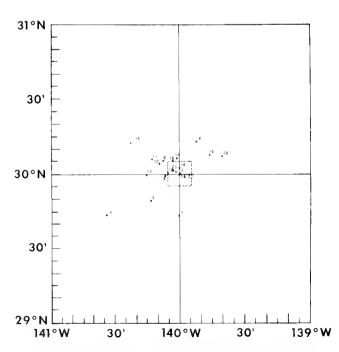


Figure 8.—Positions of oceanographic stations taken by USCGC TANEY during 15 October-5 November 1967 at Ocean Station NOVEMBER.

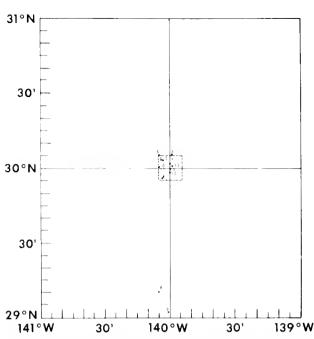


Figure 9.—Positions of oceanographic stations taken by USCGC KLAMATH during 26 November-17 December 1967 at Ocean Station NOVEMBER.

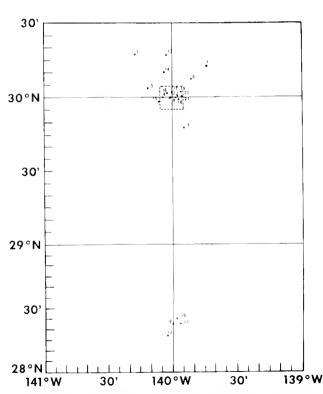


Figure 10.—Positions of oceanographic stations taken by USCGC TANEY during 7-28 January 1968 at Ocean Station NOVEMBER.

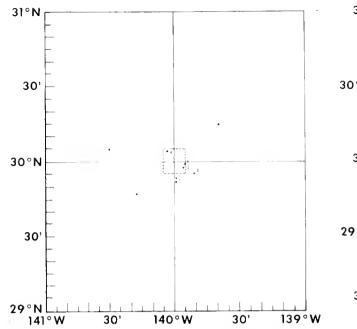


Figure 11.—Positions of oceanographic stations taken by USCGC WACHUSETT during 28 January-18 February 1968 at Ocean Station NOVEMBER.

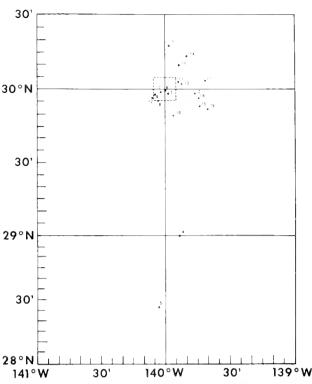


Figure 12.—Positions of oceanographic stations taken by USCGC TANEY during 18 February-10 March 1968 at Ocean Station NOVEMBER.

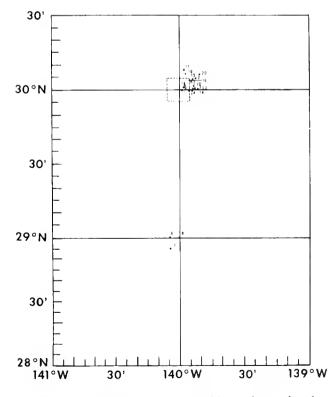


Figure 13.—Positions of oceanographic stations taken by USCGC PONTCHARTRAIN during 10-31 March 1968 at Ocean Station NOVEMBER.



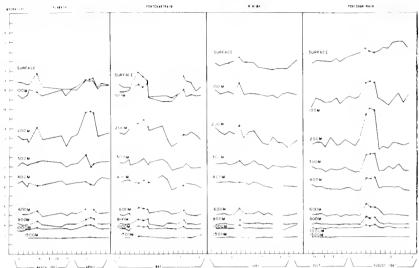


Figure 11.—Water temperature versus time at selected depths at Ocean Station NOVEMBER, 20 March-13 August 1967, (Dashed lines indicate data not taken on consecutive days and solid dots indicate data obtained outside normal O.S. grid, see Figures 3-6).

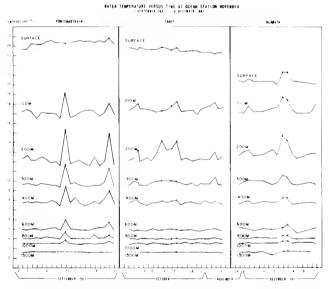


Figure 15.—Water temperature versus time at selected depths at Ocean Station NOVEMBER 3 September-16 December 1967, (Dashed lines indicate data not taken on consecutive days and solid dots indicate data obtained outside normal O.S. grid, see Figures 7-9.)

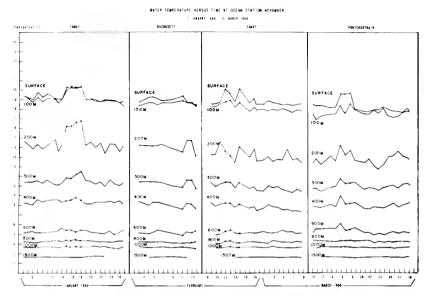


Figure 16.—Water temperature versus time at selected depths at Ocean Station NOVEMBER, 7 January-31 March 1968. (Dashed lines indicate data not taken on consecutive days and solid dots indicate data obtained outside normal O.S. grid, see Figures 10-13.)

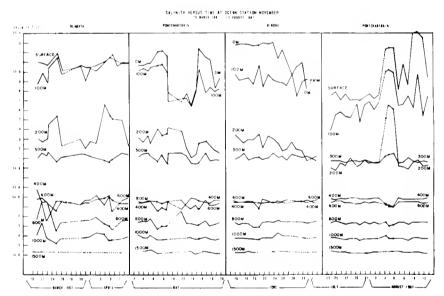


Figure 17.—Salinity versus time at selected depths at Ocean Station NOVEMBER, 20 March-13 August 1967. (Dashed lines indicate data not taken on consecutive days and solid dots indicate data obtained outside normal O.S. grid, see Figures 3-6.)

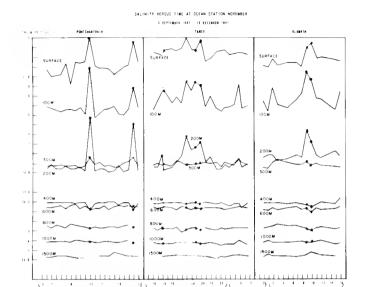


Figure 18.—Salinity versus time at selected depths at Ocean Station NOVEMBER, 3 September-16 December 1967, (Dashed lines indicate data not taken on consecutive days and solid dots indicate data obtained outside normal O.S. grid, see Figures 7-9.)

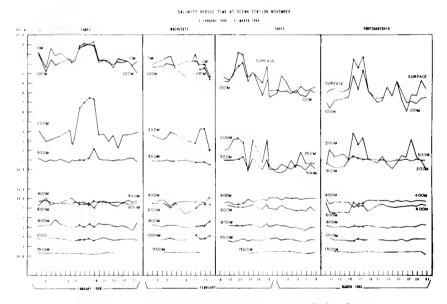


Figure 19.—Salinity versus time at selected depths at Ocean Station NOVEMBER, 7 January-31 March 1968, (Dashed lines indicate data not taken on consecutive days and solid dots indicate data obtained outside normal O.S. grid, see Figures 10-13.)

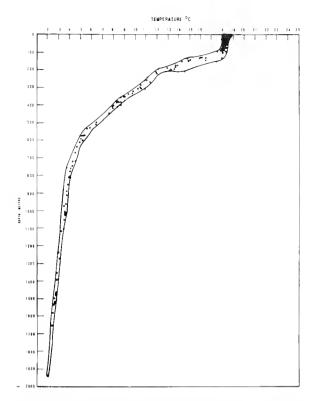


Figure 20.—Envelope of temperature versus depth at oceanographic stations taken by USCGC KLAMATH at Ocean Station NOVEMBER, 20 March-8 April 1967.

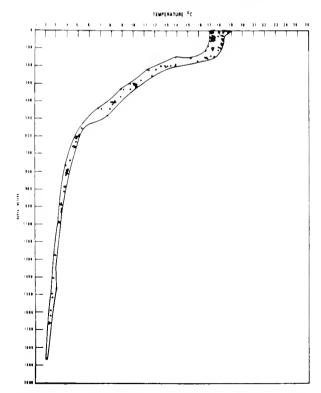


Figure 21.—Envelope of temperature versus depth at oceanographic stations taken by USCGC PONTCHARTRAIN at Ocean Station NOVEMBER, 2-19 May 1967.

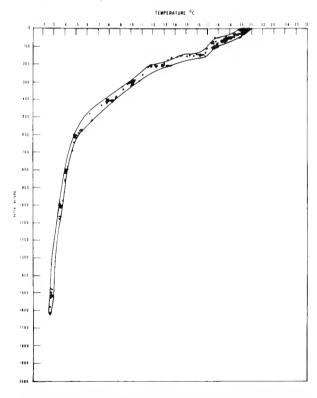


Figure 22.—Envelope of temperature versus depth at oceanographic stations taken by USCGC WINONA at Ocean Station NOVEMBER, 15 June-1 July 1967.

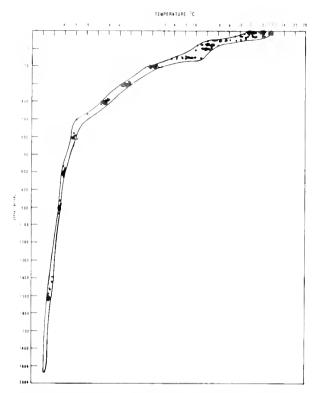


Figure 23.—Envelope of temperature versus depth at oceanographic stations taken by USCGC PONTCHARTRAIN at Ocean Station NOVEMBER, 23 July-13 August 1967.

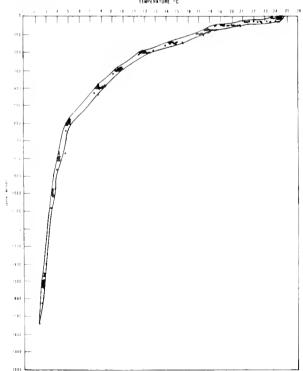


Figure 21.—Envelope of temperature versus depth at oceanographic stations taken by USCGC PONTCHAR-TRAIN at Ocean Station NOVEMBER, 3-24 September 1967.

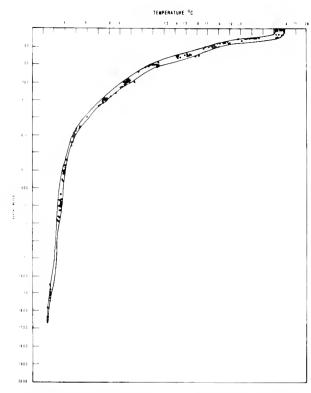


Figure 25.—Envelope of temperature versus depth at oceanographic stations taken by USCGC TANEY at Ocean Station NOVEMBER, 15 October-5 November 1967.

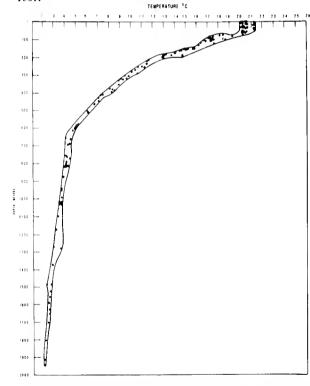


Figure 26.—Envelope of temperature versus depth at oceanographic stations taken by USCGC KLAMATH at Ocean Station NOVEMBER, 26 November-17 December 1967.

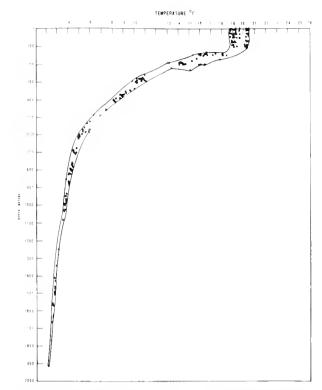


Figure 27.—Envelope of temperature versus depth at oceanographic stations taken by USCGC TANEY at Ocean Station NOVEMBER, 7-28 January 1968.

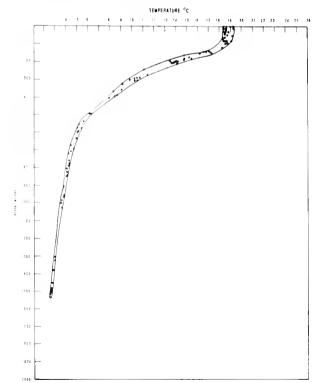


Figure 28.—Envelope of temperature versus depth at oceanographic stations taken by USCGC WACHU-SETT at Ocean Station NOVEMBER, 28 January-18 February 1968.

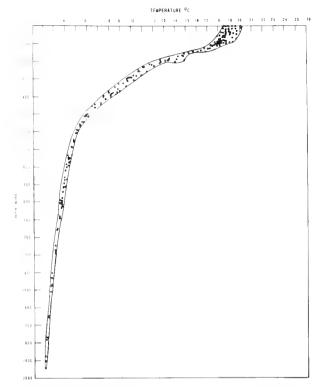


Figure 29.—Envelope of temperature versus depth at oceanographic stations taken by USCGC TANEY at Ocean Station NOVEMBER, 18 February-10 March 1968.

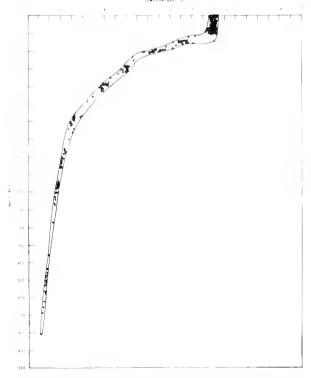


Figure 30.—Envelope of temperature versus depth at oceanographic stations taken by USCGC PONTCHARTRAIN at Ocean Station NOVEMBER, 10-31 March 1968.

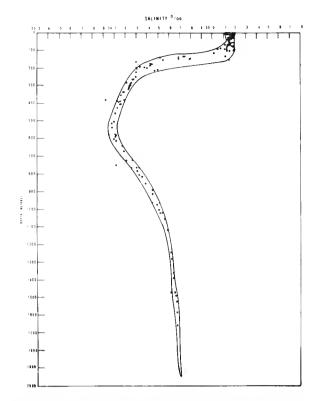


Figure 31.—Envelope of salinity versus depth at oceanographic stations taken by USCGC KLAMATH at Ocean Station NOVEMBER, 20 March-8 April 1967.

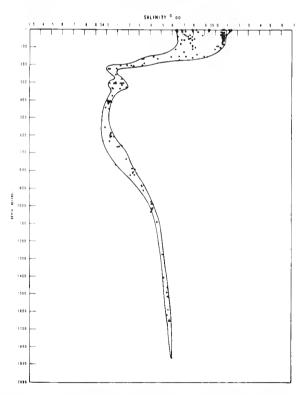


Figure 32.—Envelope of salinity versus depth at oceanographic stations taken by USCGC PONTCHAR-TRAIN at Ocean Station NOVEMBER, 2-19 May 1967.

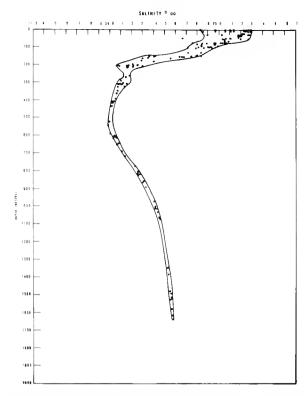


Figure 33.—Envelope of salinity versus depth at oceanographic stations taken by USCGC WINONA at Ocean Station NOVEMBER, 15 June-1 July 1967.

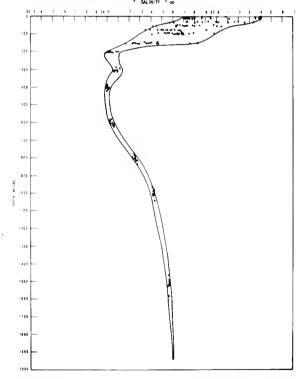


Figure 31.—Envelope of salinity versus depth at oceanographic stations taken by USCGC PONTCHAR-TRAIN at Ocean Station NOVEMBER, 23 July-13 August 1967.

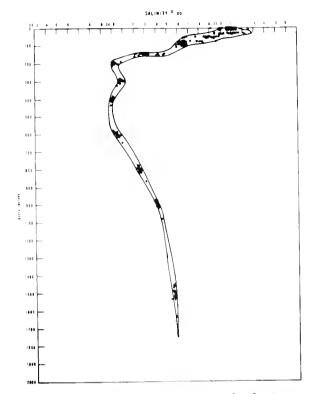


Figure 35.—Envelope of salinity versus depth at oceanographic stations taken by USCGC PONTCHAR-TRAIN at Ocean Station NOVEMBER, 3-24 September 1967.

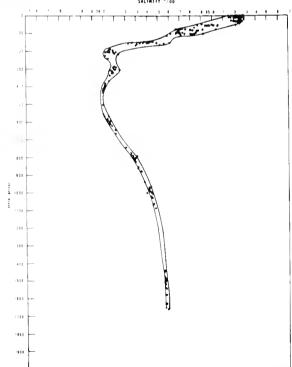


Figure 36.—Envelope of salinity versus depth at oceanographic stations taken by USCGC KLAMATH at Ocean Station NOVEMBER, 26 November-17 December 1967.

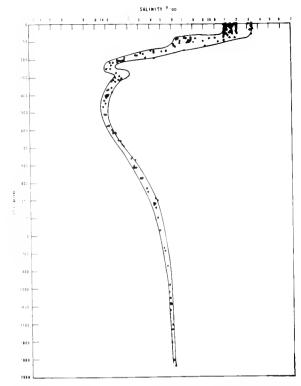


Figure 37.—Envelope of salinity versus depth at oceanographic stations taken by USCGC KLAMATH at Ocean Station NOVEMBER, 26 November-17 December 1967.

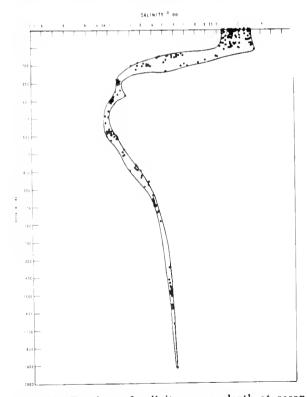


Figure 38.—Envelope of salinity versus depth at oceanographic stations taken by USCGC TANEY at Ocean Station NOVEMBER, 7-28 January 1968.

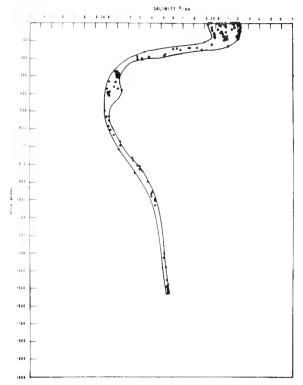


Figure 39.—Envelope of salinity versus depth at oceanographic stations taken by USCGC WACHUSETT at Ocean Station NOVEMBER, 28 January-18 February 1968.

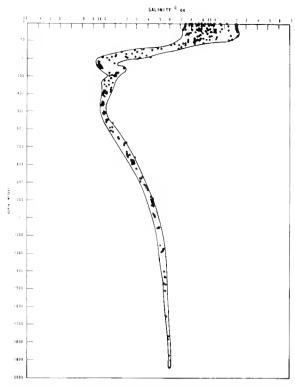


Figure 10.—Envelope of salinity versus depth at oceanographic stations taken by USCGC TANEY at Ocean Station NOVEMBER, 18 February-10 March 1968.

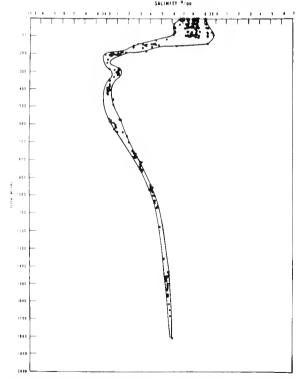


Figure 41.—Envelope of salinity versus depth at oceanographic stations taken by USCGC PONTCHAR-TRAIN at Ocean Station NOVEMBER, 10-31 March 1968.

## **Explanation of Oceanographic Station Data**

#### A. Description of Entries, Units and Codes on NODC Station Listing

#### 1. Surface Observations

EntruDescription of Field

NODC REF. ID. NO. NODC reference identity number.

COUNTRY CODE Indicates nationality of the institute or agency conducting the survey or expedition. CRUISE NUMBER A reference number assigned by NODC for storage-retrieval purposes. NODC

Publication C-1, Reference Sources of Oceanographic Station Data, gives complete

bibliographic and other pertinent information for each cruise.

Alphabetic representation of ship's name (or ICES numeric ship code). SHIP CODE

Degree, minutes, and tenths of minutes, N or S. LATITUDE LONGITUDE Degrees, minutes, and tenths of minutes, E or W.

The letter D appears in this column if extensive drift occurred while on station. DRIFT INDICATOR

MARSDEN SQUARE

Marsden square number according to the Marsden square system. 10°

The one-degree square number according to the Marsden square system. 1°

Date and time given by the originator (GMT) STATION TIME (GMT)

MONTH Month (GMT) DAY Day (GMT)

HR. 1/10 GMT to nearest tenth of an hour.

YEAR

Alphabetic or alpha-numeric designator as assigned by the originator. If the year ORIGINATOR'S CRUISE NUMBER

of the cruise forms part of the cruise numbering system, the year digits are found

in preceding field.

Originator's station number or designator. STATION NUMBER

Corrected or uncorrected sounding depth in meters. DEPTH TO BOTTOM

Depth of deepest sample in hundreds of meters to nearest hundred-meter interval. MAX. DEPTH OF

SAMPLES

Direction from which the dominant waves are coming, in tens of degrees, according WAVE OBSERVATIONS

to WMO Code 0885. DIR.

Height of dominant waves according to WMO Code 1555. HGT. Period of dominant waves according to WMO Code 3155. PER.

Sea amount (sea state) according to WMO Code 3700 (preceded by the letter A). SEA AMT.

If preceded by the letter X, weather according to WMO Code 4501. A numeric WEATHER CODE

two-digit entry indicates weather according to WMO Code 4677.

This field is used either for recording instrument code when electronically obtained \*INSTR. CLOUD

data are being reported, or for reporting cloud type and cloud amount when con-

ventional Nansen cast data are being reported.

A two character code representing instrument package of system. \*INSTR.

Cloud type according to WMO Code 0500. TYPE Cloud amount according to WMO Code 2700. AMT.

Assigned by NODC for data storage and retrieval purposes. The NODC Reference NODC STATION Identity and Station numbers combined, uniquely define each station in the NODC NUMBER

archives.

Entry Description of Field

\*DT \*S"/D This indicator specifies that the reported data have been obtained electronically

rather than by Nansen-type casts. U (up) and D (down) are cast indicators for electronically obtained serial data and specify that the data were taken while

hoisting or lowering respectively.

WATER COLOR Water color according to Forel-Ule Code.

TRANS. (m) Water transparency in meters as determined by Secchi disc.

WIND Direction from which wind is blowing in tens of degrees, according to WMO Code

087'

SPEED OR FORCE If preceded by letter S, wind speed in knots; if preceded by letter F, wind force in

Beaufort code.

BAROMETER (mbs) Barometric pressure in millibars; tens, units, and tenths places only.

AIR TEMPERATURE °C

DIR.

DRY BULB Dry bulb air temperature in degrees centigrade, to tenths.

WET BULB Wet bulb air temperature in degrees centigrade, to tenths.

VIS CODE Visibility according to WMO Code 4300.

NUMBER OBS, LEVEL The number of observed levels associated with the station.

SPECIAL Entries in this space vary with individual cruises or stations. Information con-

OBSERVATIONS cerning entries in this field can be requested from the NODC.

2. A complete description of the codes can be found in NODC publication M-2 (Rev. August 1964), "Processing Physical and Chemical Data from Oceanographic Stations."

TABLE I. Observed and interpolated oceanographic data for stations taken by USCGC KLAMATH at Ocean Station NOVEMBER, 20 March-8 April 1967, prepared from NODC Listing No. 31-1079 KL.

		LATITUI	DE 3C	LONG	TUDE	DCIN		SDEN		IION TI	ME	YE	AR	CRUISI		TATIO	N	=	DEPTH TO	MAX. DEPTH	0	WA.	ve A TIONS	WEA- THER	CLOUD			NODC STATION NUMBER		
CODE	NO.	CODE	•	1/10		* 17/10		10*	i*	MO	DAY	R_1/10			NO.		NUME	ER		BOTTOM	S'MPL"	D IR.	HGT	PER SEA	CODE	TYPE AM	7		NUMBER	
311	079	KL	3001	5 N	1400	005w		123	00	03	20	190	19	67	NO5	00	1			4663	14	24	+ 3	6	X1	8 6		-	0001	1
									WA	TER	V	VIND		BARC	). L	AIR TE	MP. 1		VIS.	NO.	192	CIAL	7							
									COLOR	TRANS	DIR.	SPEED OR FORC	1	METE (mbs	R	DRY BULB	W E		CODE	OBS. DEPTHS	OBSERV	ATION	s							
										t	20	_	$\rightarrow$	23	0 :	89	18	33	8	14			1							
		MESSENGR TIME ( MR 1/10	CAST NO.	CAR	D	DEPTH	(m )	1	°c	s	•4.		MA-	-1	SPECIFI	C VOLU	ME	₹ ,	∆ D 1, M 10 <sup>3</sup>	sou	UND	02 ml	/I I	O4-P	TOTAL=P pg = ald	NO2-N vg - 011	и03−и и03−и	SI O4-01		SCC
			}							1							- 1			1				l						
				ST		0001			888	35			15		002	824	2	00	00		191									
		190		089		7000			888		104		15								191									
		190	)	069		000			879		102		17		0.0	001	. 1	0/1	20		190 190									
				ST		0010			877	35 35			17			776		00			188									
		100		ST		0020			864		10 U97		22		0 0 2		7	00	20		187									
		190	)	089		002			857						00	770		0.0	84		187									
		1.15		ST		003			857	30	09	25	22		902	7.70	U	00	04	10	101									
		190	1			005			839	35	. 1 5	2.5	2.3		00	762	U	0.1	39	1.5	185									
		100		51		006			800		013		28		002	102	0	Ų I	J 7		179									
		190	,	OB5		007			857	35			27		000	731	7	0.2	nα		179									
		190	,	089		009			786		948		29		002			0 -	00		175									
		1		51		010			750	34			331		002	701	2	02	76		165									
				51		012			648		69		46			608		03	42	15	136									
		147		089		013		1	589	44	594	2.5	44							15	120									
				5.1	. )	015	0	ì	537	34	52	2 5	554		002	497	Q	04	06	15	104									
		197		089		T018	8	1	373	34	328	2.5	74							15	055									
				51	0	020	U	1	327	34	31	2 9	8.		002	1236	Û	ĴΟ	24	15	042									
				5.1	D	0.25	Ū	1	154	34	23	26	10		0.01	982	1	Ĵο	30	14	990									
		1 2.		083		028	2	1	055	34	159	2 6	27								959									
				5.1	r D	030	Û	1	012	34			26		001	.834	4	07	25		946									
		190		089		T 0 3 7			836		924		40								891									
				5.1	r D	040	0	C	1403		94		45			650			99		382									
				5	LD	050	0		668		99		69			434			54		847									
				S.		050			557		04		87			260			88		819									
					r D	070		-	472		10		701		0.0	125	9	1 2	08		804									
		190		OB:		072			1456		108		704				_				799									
				5		080			418		23		718		000	971	ņ	14	13		798									
		197		08		T089			1378		346		731		0.0		7	1 6	. ^ 2		798									
				S		090			1375		35		732			841		_	03		798									
				5		100			1340		39		738			777			84		900									
					r D	110			313		43		744			722			59		806									
					T D	120			294		48		749			676			729		815									
					(3	130			1284		52		754		900	1639	4	1 /	95		8 2 8									
		15		0.8	5	13h	J	(	281	3.4	544	4	755	)						14	837									

#### TABLE I.—Continued

I ID.	SHIP	LATITUD		LON	GITUBE	10:	3 so	RSDEN	1_	TATION (GM1	)	YEAR	CRUIS	E	IATOR'S STATION		DEPT TO BOTT	2	t H	OBSE	WAVE RVATIO	SNC	WEA- THER CODE	CLOUE	5	5	TATION
NO.	_		1/10		1/	10	10	1.	MI	_	HR.1/10		NO.	+	NUMBER			3 MIF			HGT PER		+	TYPE AA	_		
1079	KL	30035	N	13	957	W	12	-	0	3 21	192	196	NO	_			438	19 1	1	20	3 9	1	× 1	617			000
									ATER		WIND	BAF		AIR TE		- vis.	NO OBS	.   31	PECI								
								COLO		ANS. DIR	FOR	17.57		DRY BULB	BULB	COD	DEPT		RVA	TIONS							
										19	S2.	2 18	33	200	200	7	14	+									
	ESSENGR TIME O R 1/10	CAST NO.	CAF		DEPTH	H lm I		r *c		s ·4.	sic	MA-T	SPECIF	IC VOLE		E △ D 1YN. M x 10 <sup>3</sup>		SOUND	ļ	02 m1/l	PO 4-		10TA L = P μg = α1/I	NO2-N ug - ot/l	NO3-N yg - 01/1	\$1 O4~\$ µg - 01/	pl
																											1
				ΤD	00			1874		3509		517	0.0	2802	8 (	0000		15187									
	192		ОВ		00			1874		3508		517						15187									
	192		08	-	00			1870 1870		3509; 3509	_	519 518	0.0	2794		0028		l 5 <b>1 8</b> 7 l 5 1 8 8									
				10 10	00			1868		3509		519		2793		056		15189									
	192		OB		00			1867		3508		519	00	217.	, ,	, 0 ) (		15189									
	1 / 2			TO	00			1858		3509		521	0.0	2776	u (	0084		15188									
	192		ОВ		00			1852		3508		522						15187									
				TO	0.0	50		1843		3508	2	524	0.0	2750	)6 (	1139	)	15186									
	192		ОВ	S	00	55		1841		3507		525						15187									
	192		ОВ		00			1837		3507	_	526						15189									
				TO	0.0			1832		3507		527		2737		1208		15187									
				TO	01			1718		3499		548	00	2544	+1 (	274	٠.	15157									
	192		OB			19		1700		3491		E / 1	0.0	24.26	: 6	332		16126									
				TO TD	01	50		1608		3482 3448		561 559		2425 2450		)336 )391		15126 15092									
	192		08			52		1493		3445		559	00	2400	00 0	114		15092									
	192			J ∏U		00		1288		3427		587	٥٥	2189	) R (	0513		15028									
	192		ОВ			26		1201		3420		599	00		, ,			15002									
				TO		50		1151		3419		607	00	200€	51	0618	3	14988									
			S	τD	03	00		1048		3416	2	623	00	1861	5 (	3714	,	14960									
	192		ОВ	\$	0.3	00		1048		3415	5 2	623						14960									
			S	TD		00		0853		3405	_	647	00	1642	2.3	)89(		14903									
	192		ΟВ		04			0759		3401	_	658						14875									
				TD		00		0658		3402		672	0.0	140	1.2	1042		14843									
	192		ОВ		T 0 5			0511		3401	_	690						14800									
				TD		00		0509		3401		691		122:		117		14799									
	100			10	107	60		0448		3402 3401		698	00	1156	22	1292		14791 14788									
	192		OB	S TD		00		0400		3401	_	700 705	0.0	109	1 4	1404		14788 14788									
				TO		00		0363		3413		715		0990		1508		14790									
				TD		00		0339		3426		728		087		160		14798									
				10		00		0327		3444		744		0734		1682		14812									
	192		08			23		0326		3448		747						14816									

REFER	ID.	SHIP	LATITU	JDE	LONGITUI	D.E	INDCT	MAR			IDN TI	ME	YEAR	CRUIS	DRIGIT	STATE		_	DEP1	ا د	MAX. DEPTH OF	08	₩,	A VE 'A TIONS	TH		CLOUD			NODC STATION
CODE	NO.	CDDE	•	1/10	• •	1/10	° z	10*	11.	MOID	AY H	R.1/10		NO		NUM			BOTT	ОМ	S'MPL"	D19.	HG	T PER SE	A CC	DE	TYPE AM	ī	-	NUMBER
3.1	1079	KL	3002	2 1 N	13958	5 W	_	122	09	03	22 1	.95	1967	NO	5 00	1 3			420	16	14	1.3	4	6		1	7 6			0003
1 21	1019	1 25 1	3002	- IN	13,50	) W	1	122	WAT	_		IND			AIR TE		r. T						۱"	101	1 /	. 1	1 / 1 6	1	1	0003
									COLOR			SPEED	- BAR		DRY	w	_	VIS.	NO OBS	s.   ,		CIAL ATIONS								
									CODE	Lm1	DIR.	FORCE	lmb		BULB	BU		0000	DEPT	HS,	003C× V	A 110143	1							
											31	514	2.0	0	172	3	56	8	14	. 1			1							
									1		01	1 7	1 20			_	-		1 7				++							
		MESSENGR TIME	CAST NO.	CAR		PTH (	n)	1	℃	2	٠/	SIGA	4 A - I		MALY-X		DYN	Δ D.		SOU! /ELO!		02 ml/		PO4-P	101A1		NO2-N ug - al/l	NO3-N NO3-N		
		HR 1/10		-								-		-		-	X	103					1		pg - 0		pg - 0171	Pg = 0177	pg - 0.	
			-							i																				1
				5	TD 0	000	)	1	858	35		25	20	0.0	2776	0 6	0.0	00	1	151	8.2									
		199	5	085	5 C	000	)	1	858	35	J71	25	20						1	151	182									
		199	5	083		00		1	854		073	25	21						)	151	83									
				5		01			854	35		25			2768		00	28			.83									
				S.		020			852	35		25		0.0	2768	35	00	55			84									
		195	,	089		02			848		070	25								151										
				Si		030			847	35		25		0.0	2760	)6	00	83		151										
		195	,	083		044			838		063	25									84									
		100		51		050			837	35		25		00	2749	96	01	38		151										
		199	,	083		06			832		050	25			275						186									
		199		5		07			824	35	979 979	25		0.0	2750	11	0.2	07			85									
		19:	,	089					799	34		25 25		00		1.0	0.3	75		151	179									
				S '		10			747 634	34		25			268° 257°					_	32									
		199		0B3		13			596		630	25		00	201	74	0.5	41		151										
		19:	,			15			505	34		25		0.0	2444	. 7	0	03			121									
		199		0B		17			377		346	25		00	244	- 1	0 7	-02			155									
		19:	,	5		201			294	34		25		0.0	217	3.6	0.5	19		150										
				5		251			134	34		26			1966			23			982									
		199		083		26			087		176	26		00	1900	5 2	00	ر ے ر			968									
		17.	,	5.		30			014	34		26		0.0	182	3.0	0.7	718			947									
		199	5	0B		35			893		064	26		0.0	102.	, ,	0.	10		149										
		• / .				1401			796	34		26		an	1560	0.0	n a	887		148										
				Š.		50			612	34		26			1350			32			324									
		199	5	083		541			1556	33	982	26		-			_				308									
				5		160	)	C	1503	34	04	26	93	00	119	+8	11	159			797									
				s.		70			436	34	14	27			1050			72			787									
		195	5	08	s to	72	7	0	422	34	167	27	12						1	147	786									
				S	TD 0	80	)	0	405	34	25	27	21	00	094	15	13	371	]	147	792									
				S.	TD C	901	)	C	381	34	34	27	30	0.0	0855	5.3	14	61	1	148	300									
		195	5	083		91			378		350	27									302									
						00		C	359	34		27		00	078	59	15	43			309									
				ŝ	TO 1	10	)	C	338	34	47	27			072		16	19			317									
				S		20			317	34	51	27			067			89			325									
				5		30		Ç	1297	34	5 3	27		00	0646	53		755			334									
		199	5	OB:	5 1	39	5	C	279	34	539	27	56						1	148	342									

,																											_
REFERENCE	SHIP	LATITU		1000	STUDE STUDE	M AR	DEN		IDN TI	WE	YEAR		ORIGIN		_			MAX.	085	WAVE SERVAT		WEA-	CLOUE		- 1	NODC	1
CODE NO.	CODE		1/10		1/10	10.			DAY H	R.1/10		CRU		TATIO:			TTOTAL	OF MPL*S			RT SEA	CODE	TYPE AN			NUMBER	
311079	. r.	3001		160	1000W		1	-			1047	1	25 00	,		, ,				1							1
31/1079	KL	3001	, DIN I	140	1000%	123	00 WAT			005	1967		AIR TEA		-	7	72	16	35	4 4	+ 1	1 X1	6 5	ı		0004	. I
							COLOR	TRANS.		SPEED	BAR		DRY	WET	VIS.	, 0	10. 185.	SPEC I									
							CODE	(m)	DIR.	FORCE	(mb		BULB	BUL	1000	DE	PTHS	,,,,,,	110143								
									03	512	25	4	189	18	3 8	1	4										
	MESSENGS	CAST		_								_			-	+ +				1					1		7,7
	TIME	of ND.	CAR		DEPTH Imi	1	℃	5	٠/	SIGN	1 - A A		OMALY-X1	07	₹ ∆ D DYN, # x 10 <sup>3</sup>	١.	VELOCI		3 2 ml/l	PD.		101AL=P	NO <sub>2</sub> -N ug - at/1	NO3-1			ć
	HR 1/10	+	-	-+-		-				-		-		+	X 10-	+		_		+	-	-	<u> </u>	-	-		
					0000	1	0 + 2	3.5	0.0	2.5	2.0	1		_	2000		1510	.		1		ı					11
	00	c	S1		0000		862	35	08 079	25.		Ü	2779	8	0000	)	1518										
	00	כ	0BS		0010		862 852	35		25. 25.		0.0	2740	7	2020	,	1518										
	00	5	OB5		0010		852		U0 U77	25.		U	2760	,	0028	)	1518										
	.50	,	51		0020		847	35		25		0.0	2757	>	0055	,	1518										
			51		0030		843	35		25			02756		)U 8 3		1518										
	0.0	5	QBS		0034		842		060	25.			0	_	<b>.</b> .	•	1518										
		-	51		0050		841	35		25		0.0	2758	9	0138	3	1518										
	0.0	5	083	5	0054	1	839	35	063	25.	24						1518										
			51	D	0075	1	814	35	04	25.		00	2719	1	206		1518										
	00	5	OBS	5	0084	1	808	35	036	25	30						1518	31									
			S1	D	0100	1	805	35	04	25	31	0.0	2709	3	274		1518	3 3									
	00	5	085		0109		8Ú4		038	25							1518										
			51		0125		680	34		25			2520		340		1514										
	00		51		0150		508	34		25		0 (	02283	3	0400	)	1509	8									
	00	ל	OBS		0163		430		200		530	0.1	21001	,			1.001										
	00	5	S T O B S		0200 T0217		253 186	34	45 371	261		0.0	01991	4	0507		1501 1499										
	00	,	51		0250		122	34		26		0.0	01888	2	0604		1497										
			51		0300		027	34		26			01815		1696		1495										
	0.0	5	0BS		0323		983		134	26		0.0	01015	_	, , , ,	,	1493										
			SI		0400		838	34		26		0.0	01619	4	0868	3	1489										
	0.0	5	088	5	T0428	0	788	34	028	26	55						1488	3.2									
			ST	О	0500	0	653	34	04	26	75	0 (	01374	4	1018	3	1484	+1									
			S 1	O	0600	0	511	34	06	26	94	0.0	01189	1	1146		1480	1									
	0.0	5	OBS		0641		468		069	27							1479	-									
			51		0700		441	34		27			01056		1258		1478										
		_	ST		0800		403	34		27		0.0	00946	6	1356	ś	1479										
	0.0	5	OBS		T0854 0900		386		292	27							1479										
			S1 S1		1000		376 356	34 34		27			00849		1448		1479										
	0.0	5	083		T1059		376 344	-	42 459	27:		Ų (	00775	Ų	1529	′	1480										
	0.0	_	51		1100		336	34		27	-	0.4	00723	0	1604		1481										
			S1	-	1200		316	34		27			00689		1604		1482	-									
			51		1300		298	34		27			00657		1742		1483										
			51		1400		279	34		27			00624	-	1806		1484										
			51		1500		261	34		27			00591		1867		1485										
	0.0	5	OBS		1584		247		583	27				_			1486										
					-		-											-									

REFER	ID.	SHIP	LAT	TUDE 1/10	LON	GITUDE	DRUFT	M AF	SDEN JARE		TION TO		YEAR	CRUI	S E	NATOR* STATIO NUMBI	N	DEPTH TO BOTTOM	DEPTH OF S'MPL	06		VE ATIONS	WEA THER CODE		2		NODO STATIO NUMB	NC.
2.1		J	2.0		1.6		+		+				106	+	+	-		1153	+	+		_		1			0.07	0.5
31	1079	KL	28	320N	14	0020W		087		03		190 190	1967	NO		MP. ℃	-	4603	11	31	.   4	2	X1	6 4	+ 1	- 1	000	UDI
									coro	-		SPEED	BAR MET		DRY	W E	VIS.	NO. 085.		CIAL								
									COOE		S DIR.	FORCE	(mb		8UL8	BUL		DEPTHS	DESCRI	ATIONS	1							
											08	519	2:	37	189	17	8 8	13			1							
		MESSENG TIME HR 1/11	of NC			ОЕРТН	(m)		, <u>,</u> C		s ·/	1	AA-T	SPECI	FIC VOL	UME	₹ △ D DYN. M x 10 <sup>3</sup>	50	UND	0 2 mL		PO4-P g - 01/1	101AL-P µg = a1/1	NO2-N µg = 01/				pΉ
		HK 1731		-				_		+-		+	-	+		_					1							_
		1		1 0	TD	000	Λ	١.,	1976	3	519	24	00	0.0	2976	ا د ع	0000	1 15	217			- 1			1			
		19	5	08		000			1976		5192	24		0.0	2710	, ,	0000		217									
					TD	001			1969	-	519	25		0.0	2962	4	0030		217									
		19	5	08		001			1969	3	5192	25							217									
					TD	002			1967	3	19	25	01	0.0	296	14	0059		218									
				S	TD	003	0		1965	3	519	25	02	0.0	2960	7	0089	15	219									
		19	5	0.8	S	003	1			3	190																	
		19		0.8		004	7		1981	0 3	5191	24	98Q															
				S	TD	005	0		1961	3	519	25	0.3	0.0	295	75	0148	3 15	221									
		19	5	0.8	S	007	3		1956	3	5173	25	0.3					15	223									
				S	ΤD	007	5		1937	3	517	25	0.7	0.0	292	19	0422	2 15	218									
		19	5	0.8	\$	009	4		1790	3	165	25	44					1.5	179									
					ΤD	010	0		1781		515	25		0.0	2570	00	0290		178									
					TD	012			1733		505	25		00	2539	93	0354		166									
		19	5	08		013			1702		4986	25							158									
					TD	015			1642		491	25	60	0.0	244	29	0416	, 15	141									
		19	5	OB		018					4680		- 0															
					TD	020			1413		454	25			2239		0531		073									
					TD	025			1215		420	25		00	211	> /	0642		011									
		19	5	0.6		027			1138		4098	26					. 7.		986									
		1.0			TD	030			1052		407		16	00	193	16	0744		960									
		19	15	08	_	T036			0884 0803		4034 404	26		0.0	157		0919		908ء د88ء									
					TD	050					405		54		134	-	-		834									
		1.0	. =	08	TD	053			0635 0592		4054		78	U C	134	+ 2	106		823									
		19			TD.	060			1549 1549	_	4054 414	26	96	0.0	117	R O	119		817									
					TD	070			0491		425		11		103		130		812									
		19	5	0.8		T070			0491		4252	27				, ,	100		812									
		4.5			TD	080			)442		435	27		0.0	091	12	139		809									
					TD	090			0403	-	442		34		082		148		811									
					TD	100			373		447		41		075		156		815									
				-	TD	110			0352		451		47		071		1038		824									
			95	0.6		T111			350		4512	27			-	- '		-	825									

C TA	Y	10. NO.	SHIP COOE	LATITUDE 1/10	LONGITUDE	DRIFT	MARSO SQUA		STA	TION		YEAR	CRUISE NO.	STATION NUMBER	DEPTH TO BOTTOM	MAX, DEPTH OF S*MPL*S	OB:		VE A TIO	 WEA- THER CODE	co	2300	NOOC STATION NUMBER
3	1 1	079	KL	30020N	140015W		123	00	03	25	197	1967	N05	006	4389	15	13	3	4	Х6	6	8	0006

WATER WIND BARDCOLOR TRANS. OIR. SPEED METER ORY WEI CODE DEPTHS
CODE Init 25 SO5 125 150 150 6 14

					25	505 12	25   150   1	50 6	14							
MESSENGR TIME o	CAST NO.	CAPD TYPE	OEPTH (m)	τ *c	s •/	SIGMA-T	SPECIFIC VOLUME ANOMALY—X107	₹ ∆ 0 DYN. M. x 10 <sup>3</sup>	SOUNO	O2 ml/l	PO4-P µg - 01/1	101AL-P pg - 01/1	NO3-N yg - a1/l	\$1 0 4 \$1 pg + a1/8	p₩	500
																η
'		STD	0000	1832	3502	2523	0027511	3005	15174		,					
197	(	085	0000	1832	35020	2523			15174							
197	(	085	0009	1830	35027	2524			15175							
		STD	0010	1830	3503	2524	0027437	0027	15176							
		SID	0020	1829	3504	2525	0027384	0055	15177							
		SID	0030	1828	3505	2525	0027324	0082	15179							
197	(	085	0031	1828	35048	2526			15179							
197	(	085	0049	1829	35063	2527			15182							
		SID	0050	1829	3506	2526	0027318	0137	15182							
		STD	0075	1807	3503	2529	0027121	0205	15180							
197	(	08s	0075	1857	35027	2529			15180							
197	(	05s	0097	1756	35.09	2541			15168							
		STD	0100	1740	3499	2542	0025992	0271	15163							
		STD	0125	1612	3476	2555	0024780	0335	15175							
197	(	085	0145	1514	34590	2564			15097							
		SID	0150	1489	3455	2567	0023746	0395	15089							
197	(	085	0193	1296	34242	2583			15029							
		SID	0200	1283	3433	2585	0022095	0510	15026							
		STD	0250	118J	3417	2600	0020733	0017	14998							
		STD	0300	1066	3411	2615	0019262	0717	14965							
197	(	385	0333	0984	34082	2628			14941							
197	(	OBS	10390	0831	34039	2649			14892							
		STD	0400	0807	3404	2653	0015815	0892	14885							
		STD	0500	0609	3403	2680	0013247	1038	14824							
197	(	280	0580	0498	34023	2693			14792							
		SID	0600	0486	3405	2696	0011668	1162	14790							
		STD	0700	0433	3416	2711	0010320	1272	14786							
197	(	OBS	2766	0407	34228	2719			14737							
		STD	0800	0400	3426	2722	0009285	1370	14791							
		STD	0900	0379	3436	2732	0008332	1459	14800							
197	(	285	0964	0366	34405	2737			14835							
		STD	1000	0359	3442	2739	0007807	1540	14809							
		STD	1100	0339	3445	2743	0007428	1016	14817							
		STD	1200	0320	3445	2747	0007055	1688	14825							
		STD	1300	0301	3451	2751	0006671	1757	14835							
		STD	1400	0283	3454	2755	0006302	1822	14845							
197	(	OBS	1470	0270	34559	2759			14851							

TPY	ID,	SHIP	LATITU		NGITUDE E	MAR!	ARE	- (	ION T		YEAR	CRL		STATE	) N	١,	DEPTH TO BOTTOM	MAX, DEPTH OF	OBSI	WAVE RVATIONS	0000	CODE	•	ĺ	NODC STATION NUMBER
-	NO.			1/10	1/10	10*	1.	MO I	DAY H	R.1/10		l N	0.	NUM	958	+	- ION	S'MPL'S	DIR.	HGT PER SI	EA CODE	TYPE AN	T	-	NUMBER
31 1	079	KL	2958	3N   14	4004 W	087	90	03	29	201]]	967	N	05 00	7		1	4298	ìo	10	4 3	X 3	168	1		000
							WAT	_	V	VIND	BAR		A IR TE	MP. 1		ıs.	NO.	SPEC	141						
							COLOR	TRANS.	DIR.	SPEED	MET!		BULB	80	T c	DE	OBS.	OBSERV							
							CODE		-	FORCE	+			-	-	-									
			, ,		,	,			09	518	29	5	167	1.	44 7	7	14								
		MESSENGR	LCAST .	CARD	DEPTH (m)		*C		٠/	SIGM			OFFIC VOLU		₹ △ DYN.	D	sou	ND	010	PO4-P	TOTAL-P	NO2-N	NO3-N	\$104-	5.
		TIME HR 1/10		TYPE	Derin (iii)	'		'	•••	3,0,0	^-1	AN	IDM ALT-X	102	x 10	j.	VELO	CITY	O2 ml/1	µg ≈ a1/1	µg • q1/1	µg − at, l	μg - at/1	ug - 01	PH
										1							-					_			-
			1 1	STD	0000	1	807	35	0.6	25	2 2	0	02665		000	0.0	15]	1 4 0		1	i	(	1	I	
		20	1	OBS	0000		807		057	25:		0	02003	2	000	, (	151								
			•	STD	0010		807	35		25		Ω	02666	4	002	7	15								
		20	1	OBS	0016		807		367	25		_				•	151								
				STD	0020		807	35		25		0	02664	9	005	53	15								
				STD	0030	1	806	35	06	25:	3.2	0	02668	8	009	30	151	172							
		20	1	085	0041		8Ū6		062	25:							15	174							
				STD	0050		808	35		25		0	02678	5	013	3 3	15]	176							
		20	1	OBS	0066		811		070	25							15								
				STD	0075		811	35		25			02689		040		15]								
				STD	0100		809	35		25		0	02697	7	02:	9.0	15								
		20	1	OBS	0102		8ŭ4		065	251							151								
				STD	0125		669	34		254		0	02611	8	033	34	151								
		20	1	OBS	0134		618		650	254				_	_		15								
				STD	0150		546	34		25			0 - 502		039		15								
		2.0		STD	0200		324	34		258		0	02237	5	05]	L 7	150								
		20		085	0200		324	-	300	258							150								
		20	1	OBS STD	10248 0250		118 115	34	195	26 26		0	01941	0	062	3.1	140								
				STD	0300		040	34		26.			01941		071		149								
		20	1	085	0380		902		091	264		0	01052	,	011	.0	140								
		20	1	STD	0400		856	34		264		0	01632	2	089	20	140								
				STD	0500		655	34		26			01408		104		148								
		20	1	085	T0503		650		998	26				_		_	148								
			_	STO	0600	0	517	34	07	269		0	01189	8	117	72	148								
				STD	0700	0	417	34	15	27	11	0	01020	9	128		14	780							
		20	1	OBS	0762	0	375	34	204	272	20						147	773							
				STD	0800	0	375	34	24	272	2.3	0	00914	5	137	19	147	780							
				STD	0900		372	34	34	27:	31	0	00844	9	146	57	147	796							
				STO	1000		363	34		273		0	00790	5	154	9	148								
		20	1	OBS	T1021		360		423	27							148								
				STD	1100		341	34		274			00735		162		148								
		20		STD	1200		319	34		274		0	00687	4	169	97	148								
		20	1	OBS	1280		303		527	275		_	00//0		, 7		148								
				STD	1300		299	34		279			00648		176		148								
				STD	1400		280	34		275			00622		182		148								
				STD	1500 1750		263	34 34		27!			00598	-	188		148								
		2.0					228			276		U	00544	-4	203	1	148								
		20	1	OBS	1945	U	207	24	619	276	5 8						144	4115							

REFERENCE	SHIP				≝ MAP	SDEN	STATION T		wr n			ATOR'S		DEPTH	DEPT		WAY	VE LTIONS	WEA-	CLOUD			NODE
CTRY ID.	CODE	LATITE	1/10	LONGITUDE	₹ 10°	1	MO OAY H		YEAR	CRUISE NO.	S	TATION UMBER		TO BOTTOM	0.0	1		PER SEA	CODE	TYPE AM	+		NUMBER
31107	Q KI	3000		14000 W	123	-			1967	N05	00	е		4572			+	5	x2	68			0008
1 311101	7 KL	1 3000	J 14	14000 #1	1122	WAT		VIND	BAR	_ A	IR TEA		Τ.	NO.	ľ	ECIAL	7	21	1 12	1 0 0	1	1	0000
						COLOR	TRANS. OIR.	SPEED OR	M ET	ER D	RY LB	WET	COD!	One		VATIONS							
						COSt	0.3	SO8	2.8		72	144	. 8	14	$\vdash$		-						
		7				L	103	300	140			<del>-</del>		<del></del>	L	-	1	-					
	MESSENG TIME	CAST	CARE		1	*C	s ·/	SIGM	1 A - T	SPECIFIC		ME   6	YN. M	. VEL	OCITY	O 2 m1,		04-P	TOTAL-P ug - 07/1	NO2-N ug - at/1	NO3-N yg - at/l	SI O4-	
	HR 1/1	0										+	x 103								yg - a., ,		
					Ι,	007	2505	3.5	2.1	!		.		15			ļ	İ					
	3.0		SI			806	3505 35051	25		0026	567	3 (	0000		167								
	18 18		0BS			.806 .806	35049	251 251							167								
	10	.4	ST			806	3505	25		0026	672	1 (	0027		169								
			ST			806	3505	25		0026			053		171								
	18	0	OBS			797G			330	002	3,0	,	, 0 , ,		, 1 , 1								
			51			807	3505	25		0026	583	1 (	080	15	172								
	18	9	OBS	0045	1	807	35048	25	31						175								
			SI			807	3505	25		0026	689	7 (	134		176								
	18	19	OBS	0068		808	35044	25	30					15	179								
			S 1	rD 0075	1	1807	3504	25	30	002	702	1 (	201	1.5	180								
	18	19	OBS	0091		806	35Ú37	25.	30					15	182								
			S 1	rD 0100	1	736	3490	25	37	004	647	1 (	)268	15	161								
			51		i	.562	3457	25		002	507	6 (	333		109								
	18	19	085			472	34424	25							081								
			51			422	3438	25		002	360	6 (	)394		0066								
	18	9	OBS			1220	34204	25							004								
			SI			215	3420	25		002			505		0002								
	• 0		\$1			.099	3418	26		001	921	2 (	0606		+97ú								
	18	19	OBS			1011 1997	34146 3414	26.		001	<b>7</b> a <b>7</b>	2 (	0698		945								
	1.0	10	S1 0B5			846	34051	26: 26:		001	101	) (	1090		898								
	18	19	51			818	34051	26		001	500	. (	0667		889								
			S1			622	3403	26		001			1014		829								
	18	10	089			515	34009	26		001	J				798								
	10	, ,	S1			)499	3403	26		001	197	4	141		795								
			S1			)443	3413	27		001			254		790								
	18	9	OBS			408	34214	27					,		790								
			51			)404	3423	27		000	955	2	1355		792								
			S1			384	3433	27.		000			1447		+8∪1								
	18	3 9	OBS			369	34392	27			- 0				808								
		-	S1			364	3441	27		000	791	7	1529		811								
			51			344	3447	27		000			loùe		820								
			51	D 1200	(	324	3452	27	50	000	678	5	1076	14	829								
			ST	D 1300	(	304	3455	27		000	639	7	1742	2 14	837								
			51			285	3455	27		000	623	7	1805		846								
	18	39	085	5 T1472	(	271	34550	27	57					14	852								

REFERENC		Ι			, <u>a</u>	MARS	DEN	STATION TH		DRIGINA	TOR'S	DEPTH DEPT		WAVE	WEA-	CLOUD			NDDC
TRY ID	SHIP	LATITU		LONGITUD	10.7	\$007	ARE	(GMT)	YEAR		ATION UMBER	DF	0.0	SERVATIONS	THER	TYPE AM		5 N	TATION
ODE NO	-	-	1/10	1,	101	10*		MO DAY HE		+		3 /// 1	-	HGT PER SE	^	1176 14.00	1		
31/10	79 KL	3000	) N	14000	W	123			91 1967	NOS 009		4389 1.	2 03	11   _	X9	7   5	I	- 1	0009
						+	WAT		SPEED MET	0-	WET COD	d UBS.   Darre	PECIAL IVATIONS						
							CODE	Im) DIR.	FORCE (mb		BULB	DEPTHS	VAIION						
								0.3	S12 26	178	167 8	14							
	MESSEN	GRICAST	CAR			T		1		SPECIFIC VOLUM	E ₹ △ D	SOUND	010	PD4-P	TOTA L-P	NO2-N	NO3-N	5104-5	рН
	HR 1/	약 NO.	TYPE		H (m)	1 '	*C	5 %.	SIGMA-T	ANOMALY-X10	5° DYN. M	, AEFOCITA	02 ml/	μg = a1/1	μg = a1/I	µg = a1/1	μg - at/1	μg = σt/1	p.,
	17																		
		I	ST	n 1 00	000	1	807	3505	2531	0026733	3 0000	15168							
	1.	91	089		000	1	807	35046	2531			15168							
	1	91	OBS	00	800	1	807	35045	2531			15169							
			51	10 O1	10	1	807	3505	2531	0026771									
			S1		020		806	35U5	2531	0026783	3 0054								
	1	91	083		26		806	35046	2531			15171							
			S1		30		807	3505	2531	0026825	0080								
	1	91	OBS		)44		809	35049	2531	0036016	5 0134	15175 15176							
			S1		050		808	3505 35042	2531 2531	0026916	5 0134	15178							
	1	91	0B9		065 075		807 808	35042	2530	0027023	3 0201								
	1	91	0B3		084		808	35042	2530	002102	J 010	15181							
	1	71	S1	-	100		804	3504	2531	0027068	8 0269								
			S 1		125		797	3502	2532	0027070									
	1	91	OB:		132	1	795	35021	2532			15185							
		_	51		150	1	616	3469	2549	002545	3 0402	2 15131							
	1	91	0B5		177		399	34330	2569			15062							
					200		310	3428	2583	0022249									
			_		250		145	3419	2608	001995	3 062								
	1	91	083		261		113	34169	2613 2625	0018455	5 072	14976 3 14950							
	1	91	0B3		300 339		023 940	3412 34086	2636	001045	014.	14926							
	1	7 1			400		825	3405	2651	001599	7 0895								
					500		661	3399	2670	001423									
	1	91	083		512		644	33984	2672		- '	14839							
	•				600		524	3403	2690	001228	1 117	9 14806							
	1	91	OB:	s to	674	0	453	34089	2703			14789							
			.5	TD 0	700	0	443	3412	2706	001073									
			S	TD 0	800		408	3423	2719	000959	8 1396								
	1	91	0B:	s TO	856	0	390	34284	2725			14796							
			S		900		377	3432	2729	000865									
					000		349	3440	2738	000781									
					100		325	3446	2745	000717									
					200		305	3451	2751	000663	9 171	4 14820 14825							
	1	91	OB:	2 11	243	U	298	34521	2753			14052	,						

REFERENCE	SHIP				_ <u>a</u>	MARS	DEN	STA1	ION TI	ME		C	RIGINA	ATOR'S		DEPTH	MAX.		WAVE	WEA				NODC
TRY ID.	CODE	LATITU	1/10	LONGITUE		2001			GMT)	B 1 (10	YEAR	CRUISE NO.		ATION UMBER		TO BOTTOM	OF S'MPL'	000	SERVATIONS THGT PER SI	THER	CODES			A TION UMBER
311079	KL	3000		14001		123			_	004	1967	+				4389	38		3 4	x 2	6 8	+		0010
							WAT	ER	T v	/IND	BAR	1	IR TEA		Τ.,	NO.		,		,	, ,			0010
							COLOR	TRANS.	DIR.	SPEED OP FORCE	METI	R D	JLB	W ET BULB	CODE	0.05		CIAL 'ATIONS						
									01	516	2.2	7 1	83	156		06								
	MESSENGR TIME HR 1/10	ND.	CARD	DEP	TH Imi	Т	°C	s	٠4.	SIG	M A - T	SPECIFIC		DY	△ D N. M 10 <sup>3</sup>	SOL VELC	OCITY	O2 ml/	PO4-P vg - a1/1	TOTAL-P ug - alil	NO2=N µg - ot. l	NO3→N  rt0 - gu	\$1 O4+\$1 µg - at 1	рН
	004		OBS	T.1	440		34.0	24	E 0.7	1 . 7						1.	0.40							
	00.	•	STI		660 750		240 229	34	584 59		63	000	547	)			868 879							
			ST		000		202	34			68	000					910							
	00	4	OBS		148		189		623		70	000		_			929							
			ST	0 2	500	0	171	34	64	2.7	73	000	468	5		14	982							
	00	4	OBS	T 2	619	0	166	34	649	2.7	74					15	000							
			ST		000		155	34	66	_	76	000	448	1			062							
	004		OBS		097		153		666		76						078							
	004		OBS		566		149		676		77						158							
	00	4	085	T 3	778	0	149	34	681	2.7	78					15	195							

FERENCE V ID. DE NO.	SHIP	LATII	1/10	LON	GITUOE SOUTH	MAR SQU	SDEN		ON TIA		rEAR	CPUISE NO.	S	ATOR'S TATION UMBER		OEPT TO BOTTO	214	MAX. DEPTH OF S'MPL'S			VE A TIONS		WEA- THER CODE	CLOUD COOES	-		NODC STATION NUMBER
-	+	200		1.		123			12 0		967	NO 5	01	1		201	-	15	06	1	8		Χ1	7 5			001
1 2 0 7 9	9 KL	300	01N	14	001 W	123	WA			ND	_	1 4		MP, °C	$\top$	NO.				10	101	- 1	7.1	1 115	1	i	001
							$\overline{}$	TRANS.	OIR.	SPEED OR FORCE	METE (mbs	R	)RY ULB	WET	COD	000	i.		ATIONS								
									0.5	525	24	0 1	61	144	+ 8	14											
	MESSENG TIME HR 1/11	º NO.	CAR	D E	OEPTH (m)	1	*c	S	•/	SIGM	A-1	SPECIFIC		ME 07	E △ 0 24N. N x 10 <sup>3</sup>	١. ٧	SOUN ELOC		O 2 ml/l		PO 4-P		A L - P - 01/1	NO2~N µg = at/1	NO3=N ug - a1/l	\$1 O4-	
													7.0.			Ι,		-						i			-
				TD	0000		836	35		252		003	121	4 1	0000		151 151										
	0.0		08		0000		836		074 076	252							151										
	0 0	3	08		0009		1834	35		252		002	710	2	0021		151										
				TD TD	0020		1833	35		252		002			0054		151										
				TD.	0020		1831	35		252		002			008		151										
	0.0		03		0031		1831		059	252		002	160	, ,	, 000		151										
	0.0		OB	-	0048		1833		371	252							151										
	90	. 9		TD	0050		1830	35		25		0.0.2	726	9	0136		151										
	0.0	13	03		0074		1808		038	253						-	151										
	00	, ,		TD	0075		1808	35		251		002	706	4	020		151										
	cc	1.3	08		0096		1808		035	25							151										
				TD	0100		1799	35		25		002	713	8	027		151										
				TD	0125		1727	34	84	25	3.5	002	678	1	0331	9	151	62									
	)(	12	ОВ	5	0144		1651	34	704	254	.2						151	41									
			S	TU	0150		1612	34	64	254	+6	002	572	9	040	5	151	.29									
	0.0	13	0.6	S	10195		1357	34	276	25	74						150	51									
			5	TD	0200		1337	34	26	25	76	002	292	2.1	052	6	150	45									
			S	TD	0250		1162	34	16	260	3	002	047	9 9	063	5	149	92									
	0.0	3	ОВ	S	0287		1055	34	108	26	1.8						149	959									
				TD	0300		1030	34	10	26	2.2	001	872	2.1	073	3 .	149	152									
	10	3	08	S	T0385	(	0868	34	026	26	43						140	05									
				TO	0400		0834	34	02	26		001	635	54	090	8	148	395									
				TD	0500	(	0639	33	98	26	7.2	001	400	0.0	106	0	148	335									
	0.0	3	08		0575		0532	33	953	26	83						148										
			S	TD	0600		0512	_	98	26			250		119		148										
			S	TD	0700	(	3446	34	Ų9	27	)4	001	099	93	131	-	147										
	0.0	13	0 8	S	T0768	1	0412	34	162	27	13							789									
			S	TD	0800		0404		20	27			977		141		147										
			S	TU	0900	1	0382		29	27		000	1893	3 5	150			3 O O									
	)(	0.3	0.8	S	0966		0367		347	27							148										
			9	TD	1000		0360		36	27			825		159	-		808									
			5	TD	1100		0339	34	39	27	3.8	000	784		167		148	-									
			2	TU	1200		0318	34	43	27	43	000	74:	16	175		148										
			9	TD	1300		Ú299	34	46	27			70;		182			334									
			S	STU	1400		0281	34	49	27		000	066	24	169			343									
		J 3	0 5	5 5	T1484		0266	34	519	2.7	5.5						148	B 5 1									

ENCE	SHIP	LATITU	D.F.	LONGITUDE HANG	MARS	DEN	TATE	ION TI		YEAR	ORIGINA			DEPTH	DEPTH		WAVE SERVATI	ONS	WEA	CLO	ID FS		NODC
10. NO.	CODE		1/10	1/10	10*	- 1	MO T		-			TATION		воттом	S'MPL		HGT PE		CODE				NUMBER
1079	KL	2828	N	14000 W	087	80	04	3 2	202 1	967	NO5 01	2		4663	14	04	4 3		x1	6	6		0012
						WAT		W	IND SPEED	BARC			VIS.	NO. OBS.		CIAL							
						CODE	TRANS [m]	DIR.	OR FORCE	M ETE		WET BULB	CODE	DEPTHS	OBSER	VATIONS							
								36	512	25	4 167	156	7	14									
	MESSENGR	CAST	CARD		Τ.		Ι.	- 1			SPECIFIC VOLU	ME \$	ΔD	soi	UND		PO4	- P	TOTA L-P	NO2-	N NO3-	N 5104-	5.
	HP 1/10	NO.	TYPE		'	*C	,	٠/٠.	SIGM	A-1	ANOMALY-X10	,,   0	(N. M.		OCITY	02 ml/l	μg -		υ <b>g -</b> α1.1	µg - at			
			ST			904	35		251		002860	8 0	000	15	196								
	202		085		_	904	-	107	251	_				15	196								
	202	-	085			897	-	108	251						195								
			ST			897	35		251		002846	-	029		196								
			ST			898	35	_	251		002851		057		197								
			ST			898	35		251		002858	0 0	086		199								
	202		035		_	898		105	251						199								
	202	?	065			901		106	251						203								
			ST			901	35		251		002871	0 0	143		203								
	202	2	085		_	900		106	251						206								
	2		ST			901	35		251		002880	0 0	215		207								
	202	-	035			903		106	251		202002		203		211								
			ST			903 902	35 35		251 251		002892		287 359		212								
	202	>	035			901		106	251		002098	4 0	277		217								
	202	-	ST			824	35		252		002789	6 0	430		197								
	202	>	085			574		581	255		002109	0 0	, , ,		126								
	202		ST		_	564	341		255		002468	7 0	562		123								
			ST			324	34.		257		002301		681		048								
	2 Ŭ 2		035	_		235		116	258		002301	0 0	001		020								
		-	SI			126	341		260		002053	5 0	790		986								
	202	,	035			933	_	020	263	-	002033		,		926								
			ST			843	341		264		001654	3 0	975		898								
			ST			662	341		267	-	001420		129		844								
	202	2	OBS			627		992	267			-			834								
			ST	D 0600	Ç	559	34	8.0	269	0	001235	2 1	262	14	821								
	202	2	QBS	T0692	0	494	34	170	270	)5				14	810								
			ST	0 0700	0	491	34	18	270	16	001086	8 1	578	14	811								
			ST	D 0800		456	34	27	271		000987	4 1	482	14	814								
	I U 2	2	085			428		334	272					14	817								
			ST	D 0900		423	34	34	272	6	000905	7 1	576	14	818								
			S <b>T</b>			394	34	-	273		000855		664		823								
			5 T			368	34		273		000807		748		829								
			ST			345	34		274		000763	_	826		836								
			ST			324	34		274		000720		900		845								
			ST	0 1400	0	307	34	51	275	1	000682	9 ]	970		855								
	202	2	085	T1402	0	307	34	506	275	i I				14	855								

REFERENCE					T		ARSDEN	51	ATION TI				ORIGIN	ATOR'S			DEPTH	MAX.			A V E	WEA-	CLOUD	I		NODC
TRY ID.	SHIP	<b>LATITU</b>	30	LONG	SITUDE E	S S	QUAPE		(GMT)		YEAR	CRU		TATIO			10 BOTTOM	OF			/ATIONS	THER	TYPE AM			STATION NUMBER
DDE NO.	1000	•	1/10		1/10	- 10	1,	MO	DAY H	R.1/10		NO	J.   - 1	NUMBE	-	+		5"MPL"	_		T PER SEA	+		-	_	
1 107	9 KL	2820	N	1400	02 W	08		04			1967	NOS				_4	1114	15	_04	_  3	12	Lλl	6 5	1	1 (	0013
							-	ATER	-	SPEED	BARG		A IR TE	MP. C		15	NO. 085.		CIAL							
							COLO			FORCE	AA ETE		BULB	BULB	CC	DDE	DEPTHS	OBSERV	ATION	5						
							-	+	0.2	516	247	,	183	161	8	2	14									
		_				-		-4-	0.2	1210	24	_		-	_	$\rightarrow$									510	. [
	MESSENG	CAST NO.	CAF		DEPTH (m	o	T °C		5 ./	SIGM	A -T	SPEC	OMALY-X	10.7	≨ Δ DYN. χ Ι(	м.	VELO		0 2 m	171	PO 4-P µg - 01/1	TOTAL-P µg - 01/I	NO2-N ug - o1/1	NO3-N pg + of/I	SI O4-5	
	HR 1/10	1				-				+				-	X 11		-			-				-	-	+
										ĺ				-				1		ĺ	- 1		l	l	l	1
			S	TĐ	0000		1909		3515	25		00	028414		000	0	151									
	190		OB.	5	0000		1909		35151	25.							151									
	190		OB	5	0008		1902		35147	25.					- 0 -		151									
				TD	0010		1902		3515	25.			028282		002			197								
				TD	0020		1900		3515	25			028266		005			199								
				TO	0030		1899		3515	25.		U	028282		008	55		200								
	190		0.0		0031		1899		35146	25								200								
	190		OB		0049		1902		35148	25		0.6	0.20.12/	`	0.1.4			204								
				TD	0050		1902		3515	25			028420		014			204 208								
				TD	0075		1900		3515	25		00	028456	)	021	13		208								
	190		08		0075		1900		35148	25								210								
	190		08		0098		1895		35147	25		0.0	028429		028	2.1		210								
				TD	0100		1895		3515	25			028480		035			212								
	100			TD	0125		1888		3513 35118	25 25		()(	U+0401	,	05.	) )		214								
	190		08		0145 0150		1883 1856		3506	25.		0.0	02830	,	043	2 =		206								
				TO	0200		1579		3455	25			02530.		056			126								
	100		08		T0201		1573		34546	25		01	02301-	•	050	-		124								
	190			TD .	0250		1225		3424	25		0.0	021053	3	067	79		015								
	190		OB		0293		1007		34068	26.			021000		00.			942								
	190			TD	0300		0990		3406	26		0.0	01834	R	073	77		937								
	190		OB		T0396		0813		34019	26								886								
	130			TO	0400		0810		3402	26		0	01599	1	094	49		887								
				TD	0500		0742		3409	26			014636		110		14	878								
				TD	0600		0674		3416	26			01330		124		14	868								
				TD	0700		0605		3423	26		0	01197-	1	136	68	14	857								
				TD	0800		0537		3430	27			01067		148		14	847								
				TD	0900		0468		3437	27		0	00938	5	158	81	14	836								
				TD	1000		0400		3444	27	36	0	00815	)	166	69	14	826								
	190		OB		1000		0400		34437	27	36							826								
				TD	1100		0368		3446	27	41	0	00767	b	17.			828								
			S	OTO	1200		0340		3449	27	46	0	00719	5	18.	23		833								
			5	TD	1300		0314		3451	27	50	0	00681	0	189			839								
			5	STD	1400		0292		3454		55		00639		19			846								
			5	TĐ	1500		0273		3456		58	0	00608	2	20	21		855								
	190		OB	3S	T1540		0266		34573	27	60						14	862								

FERENCE	T T		T			- 4	MAR		STATIO		A E			ORIGIN	IATO	's	T	DEPTH	MAX.		WA		WE	- CLO	סטו			NODC
Y ID.	CODE	LATITU		LON	GITUDE	DRIFT	sou	ARE	(Ģ	MT)		re a R	CRUI	3.5	STATE	NC		TO	DEPTH		BSERV	ATIONS	THE	R CO	DES		1 5	TATION
1107	9 kı	2817	1/10 N	140	1/10 000 W		U87		-	5 1		967	NO	-+		e F	-	4609	S'MPL'	<del> </del>		PER SE	× :	1177	-			001
11201	1 112	201	,		, o o , n		00.	WAT	_		IND I	BARC	-	AIR TE			-	NO.	-	1	֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓		) ^-	1 0	וכו		ı	0014
								COLOR	TRANS.	DIR.	SPEED OR FORCE	METE	R	DRY BULB	W BU	T C	VIS.	200		CIAL								
										36	506	24	0	161	1	+ 4+	8	14										
	MESSENGI TIME HR 1/10	of NO.	CARI		DEPTH	(m )	7	°C	5 •	4.	M DI2	A -T		FIC VOL		₹ Z DYN X	. M.	VELC SOU		0 2 ml		O4-P	TOTAL- ug - al/			NO3=N µg - al/l	51 O4-51 ug - a1/1	рН
			51		000			925	351		251		0.0	2860	)5	0.0	00	15.	203									
	10	1	083		000			925	351		251							15.	203									
			51		001			921	351		251		0.0	2853	34	00	29		203									
	10	1	089		001			921	351		251								203									
			51		005			915	351		251			2849		00			203									
			51		003			910	351		251		0.0	2839	9.1	00	86		203									
	10	1	083		003			909	351		251								203									
	1.0	,	51		005			905	351		251		00	2848	3 3	01	42		205									
	10	1	083		005			905	351	-	251			2056		0.3			205									
	10	1	S1 033		007 007			903 903	351 351		251		00	2853	5 3	0.2	14		208									
	10	1									251			2011					209									
	1.0	,	51		010			894	351		251		00	2846	0 6	02	さう		210									
	10	L	OBS		010			893	351 351		251 251			1.63		A 7	r .		210									
			S1 S1		015			891 838	350		252			2869		03	-		213 201									
	10	7	089		015			824	349		252		0 (	2023	, U	04	40		197									
	10	L	51		020			551	345		255		0.0	2549		05	4.2		117									
	10	1	0 B S		T020			506	344		255		00	204	* 0	0 0	0 2		103									
	10	1	51		025			258	344		259		0.0	2159	9 6	06	an		026									
			51		030			029	340		262			1877		07			952									
	10	1	OBS		030			996	340		262		00	101	,	0 ,	0.1	_	941									
		•	51		040			803	340		255		0.0	1588	8.8	09	54		883									
	10	1	OBS		041			785	340		265		00	1500	, 0	0 /	, 4		878									
		-	S1		050			661	340		267		0.0	1364	+6	11	0.2		845									
			51		060			556	341		269			1186		12			820									
	10	1	033		061			542	341		269					1 -	- /		817									
	10	-	51		070			502	342	-	270		0.0	1056	0	13	41		816									
			51		080			458	343		272			10945		14			816									
	10	1	089		T081			450	343		272		00	J /- 4 .		4 4	7 1		816									
	10	-	51		090			420	343	-	273		0.0	087	I R	15	3.2		817									
			Si		100			387	344	-	273			10804		16			821									
	10	]	083		T101			382	344		273								821									
		-	51		110			356	344		274		0.0	0753	3 1	16	94		825									
			51		120			330	345		274			0700		17			831									
			51		130			306	345		275			0656		18			838									
			S 1		140			286	345		275			0624		18			846									
	13	1	OBS		146			274	345		275								852									

NODC STATION		CODES	WEA- THER CODE	VAVE RVATIONS	OBSE	MAX. DEPTH OF S'MPL*Si	DEPTH TO BOTTOM	R*S ON BER		CRUI	YEA		STATION T	SQUARE			1/10	LATITE	CODE
NUMBE		TYPE AMT	^	GT PER SE	-	1	4572		+	7 NO	196			23 00	T	4000 W	N 1	3000	9 KL
001		2 6	X 8	2   5	02	15	T -	r	AIR TEM		-	VIND	TER \	WAT	, ,				
						SPEC OBSERVA	NO. OBS. DEPTHS	ET CODE	DRY		M (r	SPEED OR FORCE	TRANS. DIR.	COLOR					
							14	44 7	.67	30	_   2	505	25						
	NO3=N yg = at/l	NO2-N pg - ot/l		PO4-P vg = 01/L	O2 ml/l	IND ICITY	SOL	₹ ∆ D DYN. M. x 10 <sup>3</sup>	C VOLUM	SPECIF	MA-T	SIGN	5 %.	₹ *C	(m)	DEPTH I	C ARD TYPE	CAST NO.	MESSENGR TIME 0 HR 1/10
g = 01/1   pg = 01/1	pg = 01/1					77	1.5	0000	6962	00	28	252	3506	1822	0	0000	STD		
			1		-	172	15	0000	0 7 0 2	1 00			35063	1822	· U	0000	OBS		0.94
								0027			_			1822		0010	STU		
								0027						1822		0010	085		794
								0054						1821		9050	SID		
								0081						1820		0030	STD		
								0001						1820		103]	UBS.		794
								0135						1820	()	1050	STD		
								0 4 1 2						1920	1	005]	OBS		0.94
								0203						1810		0075	CID		2.0
														1810	6	0076	085		194
								0271						1808	0	0100	510		
														1807		0103	085		794
								0339						1784		0125	STI		
								0405						1759		9150	STD		
								5 0 5						1754		0155	065		194
								0517						1379		0500	STD		194
														1320		0209	085		144
								0600						1186		0250	STD		
								0669						1049		0300	OBS		294
														1024		0310			, -4
								0783						0.864		0400	STD 085		104
														0843		T0412	STD		- 4
								0871						0663		0500	510		
								938						0515		7670 77618	OBS		1194
														0495		0700	STD		
								9995						0449		0800	STO		
								1050						0405		0816	OBS		094
														0399		0300	SID		
								1103								1000	STO		
								1157						0360		T1018	085		194
														0339		1100	STO		
								1212						0319		1200	STD		
								1268						0540		1300	STO		
								1324						0280		1400	STD		
								381						0262		1500	STD		
								439						U Z O Z					
							1489	. 7 ) 7			2	2760	34568	0258		T1520	OBS		194

ERENCE	SHIP					- <u>~</u>	MAR	DEN	STATION	LTIN				ORIGIN	ATOR'S		1	DEPTH	MAX. DEPTH			A.VE	١.	WEA+	Crons			NODC
IO.	COOE	LATITU		LON	GITUDE	DRIFT	\$QU		IG A			EAR	CRUIS		TATIO		80	01 0110M	OF	"		/A TIONS		THER	CODE	_	S	TATION
-			1/10	1.4	11/10	-	10°	+ +		HP.		0 / 7	_	+		×	+-		S'MPL'S			T PER S	-		TYPE AN			
1 1079	XL	3000	N	14	000 W		123		04 07			967		_			4	572	15	04	<u>•</u> [2	2	1	X1	6 4			0016
								WAT		WI	SPEED	BARO		AIR TE		- ve	5.	NO.		CIAL								
								COLOR	TRANS. O	IR.	OR FORCE	M ETE		DRY BULB	SUL8		DED	SHTAR	OBSERV	A TION	5							
										-+	510	22	0	189	18	3 8	+	14		_	-							
		T		T										-	- 1		Щ,	1			+					T		
	MESSENGR	ol NO.	CAI		DEPTH	(m)	T	*C	5 */	.	51G M /	\ _T		C VOLU	M.E	ξ Δ ! 5γΝ. !	м.	VELO		02 ml		PO4=P vg = af/1			NO2-N ug - al. (	NO3-N		ρН
	HR 1/10	ļ					-		-	-						x 10			-		-				pg - 0.1.	µg - a1/1	pg - 0	-
		1		T.D.	200	. n		0.40	2516		252	_	0.0	7.00	. 1	0.10		1.5										1
	009	2	0 B	TD:	000			868	3510		252		00,	2780	4	000	0	151										
	00	7		TD .	000			868 852	3509 3510		252 252		0.0	2747	2	002	n	15] 15]										
	00:	1	08		001			851	3509		252		00,	6141	0	302	0	151										
	0.0			TD .	002			846	3509		252		0.0	2740	6	005	5	151										
				TD	201			841	3509		252			2730		00 B		151										
	204	3	03		903			840	3508		252		001	- , , ,		<b>J Q</b> J	_	151										
			5	TD	005	U	1	842	3509		252		003	2740	5	013	7	15										
	300	2	OB		005		1	842	3509	3	252	6						151	187									
				TD	007		1	840	3509		252	6	00	2745	1	) e ()	5	151	190									
	0.00	3	03		007			840	3508		252							151										
				TD	310			843	3509		252		002	759	5	327	5	151										
	000	2	08		010			843	3509		252							151										
				TD	012			835	3507		252			2761		334		151										
	200	,	- 08	TD	015 015			826	3506		252		00	2761	י ל	041	3	15]										
	30	,		5 TD	020			824 517	3505 3450		252 255		00	2484	_	354		151										
	000	_	08		T021			458	3440		256		00.	2404	)	4 ر ل	4	151										
	00.	•		TD.	025			297	3428		258		00	2212		066	1	150 150										
				TD	030			126	3416		250	_		1994		076		149										
	200	3	08		031			093	3414		261		00.	. , , , 4		,,,	U	149										
	0.0			TD	040			887	3436		264		00	1687	8	095	Ω	140										
	200	•	08		T040			872	3405		264		• • •	,		• - >	•	149										
				TD	050		-	671	3404		257		00	1400	5	110	5	148										
			S	TD	060	0	0	516	3403		269	1	00	1221	2	123	6	148										
	0.00	7	08	S	061		0	496	3402		269	3						14										
				σŢ	070			447	3413		270			1070		135		147										
				TD	080			4 U 1	3424		272		000	944	3	145	1	147	791									
	009	è	08	-	1081			396	3425		272							147										
				TD	090			378	3434		273			0851		1 > 4		147										
				TD	100			358	3442		273		000	777	3	162	3	148										
	009	7	ОВ		T102			353	3443		274	-			_			148										
				TD	110			338	3446		274			735		169		148										
				TD TD	120 130			318 299	3448 3451		274			0699		177	-	148										
				TD.	140			280	3454		275 275			0664 0628		183 190		148										
				T D	150			262	3456		275			)593		190 196		148										
	000	,	0B		152			257	3456		276		000	, , , , )	'	1,0	4	148										

REFERENCE CTRY ID.	SHIP	LATITUDE	1	ONGITUDE NOTE	MAR	SDEN		TION T		YEAR				TOR'S		DEPTH TO	MA		085	WAVE		WI	EA.	CLOU				NODC
CODE NO.	CODE	1/1	1	· 1/10 5 ½	10.	1*			HR.1/10			NO.		ATION UMBER		BOTTOM	S*MP			H GT PI	_			TYPE A				TATION IUMBER
31107	9 KL	3000 N	1	4000 W	123	UO	04	08	187	196	7 N	105	017	7	- 1	4206	1		04	3 4	$\neg$		6	6 6		_		
						WA	TER		WIND	- 1	RO.		TEM		7-1	NO.	1	-		יוכו	•	1 ^	0	a i e	1		- 1	0017
						COLOR	TRANS	DIR.		M.E	TER	DRY		WET	CODI	200	OBSER	ECIA VATI	DNS									
						CDDE	um i	0.6	FORC			801	-	BUL8	-				_									
					_			06	515	) 2	40	17	8	172	_	14				,								
	MESSENGR TIME o	CAST C	ARD	DEPTH (m)	Т	°C	s	٠/	SIG	M A - T	SPE	CIFIC V	OLUM Y-X10	) <sup>E</sup> D	YN, M x 10 <sup>3</sup>	. VEFC	DCITY	D;	m1/1	PO.		*OTAL		NO2-N µg - ot/1	NO:		ا 21 - 10 ور 1 10 - ور	рН
																				+-	-		+		<del>                                     </del>	$\rightarrow$	_	_
			STD			851	35			24	0	027	368	3 ' 0	000	15	181			1	,		- 1		1	,		1
	187	_	BS	0000		851		102		24							181											
	107		STU		_	843	35			26	0	027	247	7 (	027	15	180											
	187	_	BS	0010	_	843	-	097		26							180											
			STD STD			843	35			25		027			055		182											
	187		BS	0030		843	35	09 089		25	U	027	3/3	5 (	082		183											
	187	_	BS	0049		846		U 5 9 U 9 6		25							183											
	101		STD			846	35	_		25	^	027					187											
	187		BS.	0074		845		096		25	O	041	401		137		188 191											
		-	STD	0Ū75		845	35			25	0	027	517	, ^	206		191											
	187		BS	0099		841		095		26		021	111		200		194											
			STD	0100	1	838	35			27	0	027	482	. 0	274		193											
			STO	0125	1	761	34	89	25	30		027			343		173											
			STD	0150	1	654	34	69	25	40		026			410		142											
	187		BS	0150		654		688	25	40						15	142											
			SID	0200		351	34		25	71	0	0234	416	0	534	15(	049											
	187		BS	0202		341		213	2.5	72						150	046											
			STD	0250		191	34			99	0	0208	568	0	645	150	002											
	107		SID	0300		059	34			20	0	0188	899	0	744		963											
	187		35	0301		057		142		20							963											
	187		STD BS	0400		873	340			45	0	0166	559	0	922		91ú											
	107	_	STD	10402 0500		869 667		059		-	_						909											
			STD	0600		522	340			72 88		0140			0.75		847											
	187		85	0604		517	34(			89	U	0124	+>6	1	207	148												
			STD	0700		465	34		27		0	0110	20.3	1	325		803 799											
			STD	0800		412	342		27			0096			925 428	14												
	187		BS	T0801		411	342			19	0	0010	337	1	420	14												
			STD	0900		383	343		27		0	0087	724	1	520	148												
			STŪ	1000		357	344		27			0079			603	148												
	187		35	T1008		355	344	_	27	_			- 0 7	1	-05	148												
			STD	1100		333	344		27		0	0074	447	1	680	148												
			STD	1200		312	344		27			0070			752	148												
			510	1300		293	345		27			0056			821	146												
		9	STD	1400		277	345		27			0063			886	148												
	187	OB	35	T1498		263	345		27		-			1	. 00	148												

Table II. Observed and interpolated oceanographic data for stations taken by USCGC PONT-CHARTRAIN at Ocean Station NOVEMBER, 2-19 May 1967, prepared from NODC Listing No. 31-1080 PW.

REFERE	NCE ID.	SHIP	LATITU	DE	LONGITUDE	불	ARSDEN SQUARE		TAT	ION TI	ME	YEAR	CPI	ORIGIN UISE S	ATOR*	_	DEPTH	1000	PTH :	08	WAVE SERVATIONS	WEA-		DUC			ODC ATION
	NO.	CODE		1/10	1 10		10" 1	1	40 E	AY H	R.1/10				UMB		80110/	M S'MI		DIR.	HGT PER SE	CODE	1 + Pi	4.47		N I	_ ** 3 E P
311	080	PW	3000	N	14000 W		23 0	) (	05 0	2 2	200	1967	N	06 00	1		4200	1	4	34	3 4	x 5	6	6			0001
	000			.,		-	_	VATE			IND	1	4	AIR TE			NO.	Τ'	-		1 - 1 - 1	, ,,,					3001
							cot		TRANS	DIR.	SPEED	METE	R	DRY BULB	W E			0000	SPECE EPVA1								
							co	JE .	(m)	36	S11	26	_	189	16	_	14	-									
					1					30	311	20	1	109	10		-	1	-					_			
		MESSEN GE TIME		CARD	DEPTH I	n I	T *C		S	٠/	SIGA	1-A	SPE	CIFIC VOLU	ME	N A D	4.	UND LOCITY	0	g ml	PO 4-P	TOTAL-P	NO2		NO3-N	104~2	рН
		HR 1'10		1176		_		_			-				-	x 103	-		-		ug - at/I	1 10 - GU	by "	-	µg + 01	μg = at :	
							105	. !	2.5	o 7	7.5	2.0		0 2 7 7 2	2	0000		5107	,								
		20	0	ST			185		350		25.		U	02773	2	0000		51 <b>8</b> 2 5182									
		20		OBS	0000		185			065	25.																
		20	U	OBS	0009 0010		183 183		350	055	25 25.		0	02733	0	0028		51 <b>7</b> 7 51 <b>7</b> 7									
				STI			182		350		25.			02711		0055		5176									
		20	0	085	0020		181			J6 055	25.		U	02111	1	009		5175									
		20	•	STI			181		350		25.		٥	02696	7	0082		5175									
		20	0	085	0046		181			068	25		0	02070	•	0002		5178									
		2.0	•	STO			181		35		25		0	02692	8	0136		5178									
		20	0	OBS	0070		181			067	25		-		-			5180									
			_	ST			180	5	350	06	25	32	0	02685	7	0203		5180									
		20	0	085	0094	+	178	8	35	22	25	34					1:	5177	7								
				ST	0100	)	177	9	35	01	25	35	0	02666	O.	0270	0 1	5175	5								
				ST	0129	5	174	0	34	94	25	39	0	02634	4	0336	5 1	5167	7								
		20	0	085	0142	2	171	3	34	837	25	38					1	5161	1								
				ST	0 0 1 5 0	)	165	4	34	74	25	44	0	02593	3	040	1 1	5143	3								
		20	0	085	T019	l	139	4	34	350	25	72					1	5063	3								
				ST	D 0200	)	135	8	34	32	25	77	0	02289	6	0523	3 1	5052	2								
				ST	D 0250	)	117	8	34.	20	26	03	0	02047	6	063	2 1	4998	В								
		20	0	OBS	0284		107			142	26							4967									
				51	D 0300	)	104		34		26		C	01879	4	073		4957									
		20	0	OBS	T037		088			059	26							4911									
				ST			082		34		26			01598		0904		4892									
				ST			061	9	34	02	26	77	0	01348	2	105		4827									
		20	0	085	055		053		-	996	26							4803									
				ST			050	6	34	04	26			01198		1179		4798	8								
				ST			044		34		27		C	01057	1	129		4793									
		20	0	085	1073		043		_	185	27							4792									
				ST			041		34		27			00947		139		4799									
		20	0	ST			038		34		27		0	00861	5	148		4800									
		20	U	OBS			037			346	27		_	00000	0	167		480]									
				S T I			035		34		27			00803		1569		4806									
				ST			033		34	_	27			00754		164		4813									
				ST			031		34		27			00709		1716		4822									
				ST			029		34		27			000669		178		4832									
		2.0		ST			028		34		27		O	00630	14	185		4843									
		20	U	OBS	T140	+	027	9	34	536	27	56					1	4845	0								

				·											_		MAX.	_				_						7
REFERENCE	SHIP			INGITUOE	SOU		STA1	ION TI	ME	YEAR	-	OPIGIN			-	DEPTH TO	DEPTH			WAY ERVA	TIONS	W		CODES			NODE	İ
CODE NO.	CODE	LATITUDE 1, 10		NGITUGE HE	10*	11.		DAY	R 1/10	10 M M			TATIO		80	DITOM	S'MPL"	s			PER SE	100		TYPE A MI	-		NUMBER	
31108	n Dw	29597N	-	+000 W	087	90				196	7 N	06 00	2		14	206	16		34	3	4	×	1	6 5			000	,
31,100	0	273711	1	*000 m	00.	WA		_	VINO	т—	-1-	AIR TE			Ť	NO.	_	_	<u>'</u>	-	. 1	,	- '		1	1	000.	-1
						COLOR		DIR.	SPEED		RO- TER	DRY	WET		20	085.	OBSERV	VATIO	NS									
						CODE	Im1	DIK.	OR EORCE	1 .	bs1	BULB	Bull		3	DEPTHS		_										
										2	62	178	13	9 8		14												
	MESSENG	CAST C	AFD				T		Ì		19.2	ECIFIC VOLU	ME	₹Δ(	0	sou	IND	_		P	04~P	TOTAL	_ P	NO2-N	NO3-N	5104-	·S.	
	1155	9 NO. 1	TYPE	OEPTH (m)	τ	*C	5	٠/	SIGA	AA-T	A	NOMALY-X	07	ΟΥΝ. / × 10 <sup>3</sup>	M. 3	VELC		02	mI/I		- 614	ه - و پر		μg - α1/l	μg = at/			
	HR 1/10				+		+		+	_					_	+	-	_	_	+			+				-	_
			STD	0000	1	830	35	a <b>7</b>	25	27	١,	002709	3	000	Λ	15	174			1			1			1	1	
	19		BS	0000		830		071	25			,02107	_	000	0		174											
	17		STD	0010		826		07	25		(	002704	0	002	7		175											
	19		BS	0012		825		066	25		`						175											
	• ′		STD	0020		825		07	25		(	002707	7	005	4		176											
			STO	0030	1	824	35	06	25	28	(	002711	5	008	1	15	178											
	19		85	0033	1	824		062	25								178											
			STD	0050	1	824	35	80	25	29	(	002705	4	013	5	15	181											
	19		85	0054		824	-	088	25								182											
			STD	0075	1	824		09		30	(	002709	4	020	3		185											
	19		BS	0084		819		085	25								185											
			STO	0100		799		04	25		(	002692	1	027	1		181											
	19		85	0111		783	_	998		33							178											
			STD	0125		754		98		39		002638		033			172											
			STD	0150		703		86		42	(	002615	7	040	3		159											
	15		85	0159		684	_	793		41		202201		Λ F 3			154 045											
	1.0		STD BS	0200 T0204		337		27		77 80	(	002284	8	052	5		036											
	19		5 <b>T</b> 0	0250		169	-	19		04	(	002038	16	063	4		995											
			STD	0300		038		15		24		001848		073			956											
	19		BS	0305		026		147		26	`		, ,		•		952											
	•		STD	0400		851		05		47	(	• 1639	13	090	5		902											
	19	5 0	85	10406	С	840	34	045	26	48						14	899											
			STD	0500		640		05		77	(	001352	5	105	5	14	836											
			STD	0600		492	34	·05	26	96	(	001172	6	118	1	14	793											
	19	5 0	BS	0604	0	487	34	052	26	96						14	791											
			STD	0700		440		15		09		001047		129			789											
			STO	0800		1402		24		20	(	000945	4	139	2		791											
	19		85	T0809		399		253		22							791											
			STD	0900		379		33		30		000860		148			799											
			STD	1000		358		41		38	(	000784	7	156	4		808											
	19	-	85	1025		353		422		40		2007.	,	14.	,		810											
			SID	1100		338		44		43		000744		164			817											
			STD	1200		)318 )299		47 50		47 51		000708 000672		171 178			825 834											
			STO	1300								0006 <i>12</i> 000636		184			843											
			STD	1400 1500		280		⊧53 ⊧55		55 58		000600		191			853											
	19	ns 0	310 85	T1591		246		122 1578		62		000000	, ,	7 2 1	· U		862											
	13	,	, U.S	11391		/ 240	54	סוכי	21	04							01,72											

REFER	RENCE					_ =	MAR	DEN	STATI	ON TI	ME			ORIGIN	ATOR*		T 6	DEPTH	MAX.		WAY	V E	W	EA-	CLDU	рΤ		-	NODC
CTRY	ID.	CODE	LATITUDE	l l	ONGITUDE	DRIFT	SOU	ARE	10	SMTI		YEAR	CRUIS		STATIO		1	TO	DEPTH	OB.	SEPVA	TIONS	T	H ER	CODE	5			STATION
CODE	NO.		. 1/	/10	1/10	-=	10"	1*	MD D	AY H	2,1/10		NO.		NUMBE	R	BD	MOTT	S'MPL'S	DIR	HGT	PER S	A	DDE	TYFE A	w f			NUMBER
31	1080	PW	300001	N 1	140000W	ΙÌ	123	00	05 0	4/2	02	1967	NO	6 00	3		4	663	13	04	2	4	-   ;	<b>K</b> 1	8 4				0003
								WA	TER	W	IND	BARC	T	AIR TE	MP. °C		T	ND.			ı' '								
								COLOR	TRANS.	DIR.	SPEED	M ETE	R	DRY BULB	WE1	COD	. (	Onc.	SPEC OBSERV										
										04	S15	27	_	178	15	+-	+-	13											
									+	04	313	1 21	_		_						-	_		-		_			1
		MESSENGP		CARD	DEPTH	(m)	т	*C		4.	SIGA	1-AA		MALT-X	1 A E	₹ A D	и.	VELO		02 ml/		04-P	TOTA		NO2-N		NO3-N	SI O4-5	
		HR 1/10		1176			_		-						_	x 10 <sup>3</sup>		V110	CIII		νg	- 01/1	ע 9 • •	5171	μg + α1/	<u>'</u>	ug - a1/1	μg - σ1.	1
							1		1																				
		20		STO				829	350		25		00	2693	9	0000	0	151											
		202	2 (	OBS	000			829	350		25				_		_	151											
		20		STO				825	350		25		0.0	2688	8	002	7	151											
		202	2 (	OBS	001			824	350		25							15]											
		20.		STO				824	350		25		0.0	2689	8	0054	4	151											
		202	2 1	OBS	002			823	350		25		0.0	2/02			,	151											
		20.		STO				823	350		25		00	2692	4	008	1	15]											
		202	2 (	085	004			825	350		25		~ ~	2707		012	_	15]											
				STO				825	350		25			2707		013		151											
		20;	, ,	STO				813	350		25 25		00	2695	U	020	_	15]											
				DBS	007			812	350									151											
		20	۱ ۱	OBS	009			793	350		25			240	,	0.7.7	_	151											
				STO			-	790	350	-	25			2694		027		151											
				STO			_	767	349		25			2686		033		153											
			_	STO				743	349		25		00	2679	4	040	4	15]	_										
		20	2 (	085	015			743	349		25				_			151											
			_	STO			_	393	343		25		00	2344	9	0530	0	150											
		202	2 (	OBS	T020			381	343		25		0.0	2000		o		150											
				STO				219	342		25			2093		054		150											
		202		STO OBS	030 031			072	341		26		00	1899	9	0740	Ų	149											
		202	٠ '	STO				857	340		26		0.0	1655	_	091	0	149											
		202	, ,	316 085	040			811	340		26 26		00	1000	•	0918	8	148											
		200	۷ (	510				-	340		26		0.0	1400	. ,	107	,	148											
				STO				663	340							107. 120.			-										
		202	,	085	060 063			518	340		26 26		00	1218	4	120.	_	148											
		204	٠ (					482 447	341				~ ~	1070	-	131	,	147											
				STO			-				27	-		1078															
		20.		STO				402	342		27		ŲΟ	0945	4	141	8	147											
		202	۷ . ا	OBS	T082			393	342		27		0.0	003.		160	-	147											
				STO				365	343		27			0836		150		147											
				STO				336	344		27			0759		158		14											
				STO				314	344		27			0697	_	166	-	148											
				STO				300	345		27		00	0658	1	172	/	148											
		20	۷ ۱	0BS	T127	4	0	295	345	19	27	53						148	329										

ID.	SHIP	LATITU	DE LO	DNGITUDE STORY	M A R SQU	SDEN		ION TIM		EAR	CRUIS		TATION	4	DEPTH	MAX, DEPTH	08	WAV SERVA		WEA	CDO!		S	NODC
NO.	1000	•	1.110	1/10	10*	1.	MO	DAY HR.	, 10		NO.	1	UMBE	R	BOTTON	S'MPL'	S DIR.	HGT	PEP SE	COD	TYPE	иt	١	UMBER
1080	PW	2945	ON 1	40000W	087	90	05	05 00	18 1	967	NO.	5 00	/4		4755	16	04	2	4	x 1	7.6			2021
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	., ,					WAT		WIN				AIP TEA			NO.	T		1 - 1	7 (	1 ^ 1		, ,	1	0004
						COLOP	TRANS.	1	SPEED	MET		DRY	WET	VIS	DBS.	COSCOV	CIAL							
						CODE	(m)	DIR.	OF	(mbs		BUL8	BULB		DEPTHS	OBSEKA	A IIQN 3							
										28	1	172	14	4 8	14			1						
				1	_			·			<u> </u>	-	_		_	-		1			1	1	1	
	MESSENGS TIME	TEAST	CARD	DEPTH Imi	Т	*C	5	٠/	SIGMA	1 - A		C VOLU	ME (	₹ A D	. 50	OCITY	02 ml/		9-10	TOTAL-				рН
	HR 1/10	1		ļ. <u>-</u>										X 10 <sup>3</sup>	450	CCITI		P 9	~ a1'4	µg + 01/	l µg = at/	yg - ot-	µg + a1′l	
																i		+				1		
			STD	0000	1	827	35	09	252	9	00	2691	3	0000	1.5	174								
	008	8	085	0000	1	827	35	086	252	9					15	174								
			STD	0010	1	825	35	0.8	252	9	00	2693	4	0027	15	175								
	00	8	OBS	0011	1	825	35	082	252	9					15	175								
			STD	0020	1	824	35	0.8	252	9	00	2697	0 (	0054	. 15	176								
			STD	0030	1	823	35	07	252	9	00	2701	7	0081	15	177								
	00	8	085	0031	1	823	35	072	252	9					15	178								
			STD	0050	1	826	35	08	252	8	00	2712	8 (	0135	15	182								
	00	8	OBS	0051	1	826	35	076	252	8					15	182								
			STD	0075	1	824	35	08	252	Q	00	2716	7	0203	15	185								
	001	8	OBS	0078		823		076	252	Q					15	185								
			STD	0100	1	811	35		253	0	0.0	2711	7	0271	15	185								
	00	8	085	0101		810		051	253						15	185								
			STD	0125		741	34	_	253			2659		0338	_	167								
			STD	0150		661	34		254		00	2614	8 (	0404		145								
	00	8	OBS	0150		661	-	732	254							145								
			STD	0200		394	34		256		00	2412	6 (	0529	15	063								
	001	В	OBS	0202		2930	-		258															
			STD	0250		178	34		260			2055		0641		998								
			STD	0300		013	34		262		00	1814	0 (	738		947								
	0.01	В	OBS	0302		007		134	262		00		2	043.1.1		945								
			STD	0400		844	34		264		0.0	1643	3 1	0911		899								
	00	В	OBS	T0412		824		023	264		0.0		-			893								
			STD	0500		498	34 34		267			1372		1062		838								
	0.0	0	STD	0600	-				269		00	1193	2	1190		795								
	00	0	OBS	0614		483		035	269		0.0	1072		1 3 0 2		791								
			STD	0700		443	34		270			1073		1303		790								
	0.0	0	STD	0800		405	34		271		00	0971	2	1405		792								
	00	g	OBS	10824		397		228	272				_			793								
			STD	0900		380	34		272			0883	-	1498		799								
	000	0	STD	1000		358	34		273		0.0	0806	9 .	1583		808								
	001	B	OBS	T1033		351		408	273		0.0	0751	-			811								
			STD	1100		337	34		274			0756		1661		816								
			STD	1200		318	34		274			0721		1735		825								
			STD	1300 1400		282	34		274			0686		1805		834								
			STD	1500		266	34		275			0654		1872		844								
		8	OBS	T1620		248		561	275 276		00	0621	7	1936		854								

REFERENCE	SHIP				Carro	F #1	MARS	DEN	STATION	TIME		EAR		_	ATOR'S		DEPTH	UEFII	H.		W A VE		WEA	CLOU				NODC ATION
TRY ID.	CODE	LATITU	DE 1/10	LON	GITUDE 12/10	DBIE	10*	- 1	MO DAY			TEAR	CRUISI NO.		AOITAT2		BOTTON	0.5				# SEA	0.001					UMBER
_	-	2000		1.				1				017		1					$\neg$		_							
311080	Pw	2830	N	14	000 W		087	0.0	05 06	_		967	NO		MP TO	٦_	4638	19	9	04	2 4		X 2	6	8			0005
										WIN	PEED	BARO	)-	DRY	WET	VIS.	NO. 085.	SP	ECIAL									
								COLOR	TRANS. DI	R.	ORCE	(mbs		BULB	BATB	C001	DEPTHS	OBZER	VAIIC	314.2								
										1			٦.	178	16	Р	13	<b>†</b>										
									-	-		-	_		1-,-		1	1										
	AMESSEN-	GR L CAST	CA	RD I	DEPTH	(m.)	T	.c	s */		SIGM	A - T		VOLU	107 C	E A D	. SC	OCITY	02	mLL	PO4		TOTAL-P	NO2=1		1-N	\$1 O4 = \$1 µg = 01/1	рМ
	HR 1/1			,,			-									x 10 <sup>3</sup>					24.	-	24 - 01	31g - 01	. bg .	01.7	pg - 007	
			S	TD	000	0	1	981	3521		249	9	00	2972	8 (	0000		5219										
	1 9	9.8	08		000			981	3521		249							219										
				ΤD	001			980	3521		250		00.	2973	8 (	0030		5220										
	1 9	98	08		001			979	3521	4	250							220										
			_	ΤD	002			979	3521		250			2973		0059		5221										
				TD	003			978	3521		250		00.	2975	9 (	0089		223										
	1 4	98	08	_	003		_	977	3521		250				_			5224										
				ΤD	005			946	3519		250		00.	2920	19 (	148		5217										
	1,	98	08		006			906	3516	4	251		0.0	3036	0			5208										
				TD	007			896 854	3515 3507		251 252			2836 2801		)220 )291		5206										
				TD	010			789	3496		252			2734		360		5182										
	1.0	98	08		012			783	3495		253		00.	2154	, ,	,,,		5180										
		70		TD	015			694	3477		253		0.0	266]	6	)427		5155										
	1.	98	OB		019			514	3448		255		• • •	2.00	. •			5103										
	•	, 0		TD	020			450	3441		256		0.0	2409	9	)554		5083										
				TD	025			181	3412		259			2111		)667		4998										
	1 .	98	08		T025			163	3409		259							4992										
	_			TD	030		1	044	3407		261	. 7	00	1917	79	768	3 1	4957										
	1	98	08	S	038	1	0	862	3404	0	264	15					1	4903										
			S	TD	040	0	0	824	3404		265	0	00	1607	7.0	944	1	4891										
			S	TD	050	0	0	657	3403		26	73	00	1390	2	1094	1	4843										
	1	98	08	15	T050			646	3402		26							4840										
				TD	060			571	3414		269			1206		1224		4826										
			_	TD	070			504	3424		270		00	1058	35	1337		4817										
	1	98	0.8		076			466	3430		27							4813										
				TD	080			454	3432		272			094		1437		4814										
				TD	090			419	3438		273			0870		1528		4817										
		0.0		TD	100			388	3443		273		00	080	2	1612		4821 4822										
	1	98	08	S T D	T101 110			382 361	3444 3447		273		0.0	075	1.6	1690		4822 4827										
				TD	120			337	3450		274			0708		1761		4834										
	1 :	98	0.6		T126			323	3452		275		Ų Ū	0100	, _			4839										
		, 0		TD.	130			315	3453		279		0.0	0661	7.4	1832		4842										
				TD	140			295	3455		275			0635		189		4850										
				TD	150			277	3457		279			060		195		4859										
				STD	175			238	3460		276			0550		2103		4885										
	,	98	08		T190			220	3460		276							4905										

NCE	SHIP	LATIT	UDE.	LON	GITUTE	DRIFT	MARS	ARE	-	ION TH		Y E A	R	CRUISE	ORIGIN	TAT	ION		EPTH TO TTOM	DEPTH OF		WAV SERVAT	IONS	WEA- THER CODE	CLOUD	5	S	NODC TATION UMBER
NO.	COOL	•	1/10		1/10	- Z	10*	1.	MO !	DAY HE	.1/10		-	NO.	-	NUM	ABER			S'MPL"	1		ER SEA		TYPE A.A.			
080	PW	283	2 N	140	0100w	(	087	80	05	07 1	93	19	67	N06				47	755	15	03	3		×1	6 6		1	0006
								W.A.	TER	W	UNI		ARO		AIR TE	-	VIS	5   5	10.		CIAL							
								COLOR	TRANS	DIR.	OR FORC	- 1 "	AETER (mbs)		DRY BULB		ULB CO		PTHS	OBSERV	ATIONS							
							}				FOFE	-	24	-	183	1	56 8	1	4	_								
			_						<del> </del>	1	Т		-				≥ △ □	т.				1					T	
	MESSENG	CAST	CA		DEPTH (	m)	T	*C	S	٠/	SIG	M A -	т	SPECIFI	C VOLU	107	DYN.	м.	VELC	JND	0 2 ml/		4-P	TOTAL - P pg - at/1				pН
	HR 1/1		- ''	7.6					+		-		-				x 10	-				+	-		-	-	+	-
																	1	- 1				1					1	)
				TD	0000		_	940		22		10		007	2 <b>8</b> 67	6	000	0		207								
	19	3	0.6		000		_	940		219		510		00	2050	\E	002	0		207 208								
				TO	001		_	935 935		22 218		512 512		00.	2859	, )	002	7		208								
	19	3	80	55 5TD	001		_	935		218		513		00	2853	9	005	7		206								
				STD	003			908	-	17		515			2835		008			203								
	19	12	08		003		_	903		168		516		• • • •		_	•-0	•		202								
	1 /	,		TD	005		_	845		08		524		00	2753	3.2	014	2	15	187								
	19	3	0.6		005			845		083		524							15	187								
		-		STD.	007		_	838		08		526		00.	2747	71	021	0	15	189								
	19	3	OE		007	7			35	076																		
	19		OB	35	009	8	1	827		085		529								190								
			5	STD	010			826		0.8		529			2724		027			190								
			5	5T0	012			808		05	_	531		00	2715	53	034	7		188								
	15	93	06	_	014			792		019		532			2700		0 /- 1			187								
				510	015			780		99		533		00	2700	) 2	041	4		184								
	15	93	0.6	_	T019			518	_	481		555		0.0	2469	2 7	054			0105								
				STD	020			496	_	46 27		558 593			2465 2143		065			026								
				STD	025			257		_				00	2141	90	00)	, ,		979								
	19	13	06	_	029			106		159		613		0.0	1930	2 2	076	. 1		971								
				STD	030			180	_	14		616		00	エッラい	U Z	0.76	, 1		915								
	19	13		BS	1038			892	_	056 06		641 647		0.0	1642	25	093	10		904								
				510	040			856 678		106		647			1396		109			851								
	1.	2.2		STD BS	050 056			)588		060		685		00	1370		105	. 1		827								
	19	7.3		5 T O	060			561		10		691		0.0	1222	29	122	2.2		822								
				STD	070			490		20		707			1070		133			811								
	1	93		BS	T075			461		252		715							14	808								
	-			STO	080			)442		29	2	720	)	00	095	56	143	8 8	14	808								
				STO	090		C	407	34	37	2	730	)	00	0863	36	152	9	14	812								
	1	93		BS	T094		C	394	34	394	2	733	3							813								
				STD	100	0	C	377	34	443	2	738	3	00	079	22	161			816								
				STD	110	0	C	350	34	+48		744			073	_	168			822								
				STD	120	0	C	327	34	+51		749			068		175			+830								
				STD	130	0	C	309	-	453		752			066		182			839								
				STD	140	0	(	294	34	+54	2	755	5	00	064	17	189	2		+850								
	1	93	0	BS	T146	3	(	0287	34	4544	2	755	5						14	4857								

REFER	RENCE	SHIP					- ax	MARS	DEN	STATION		wr .			RIGINA	TOP'S		DEPTH	MA	X H	220	WAV	E TIONS	w e		CLOUD			NODE
TPY GDE	ID. NO.	CODE	LATITU	1 10	LON	GITUDE 11/10	DAIF	10°		MO DAY	HR,1/1	YE A	AR C	NO.		ATION R3BMU		TQ NOTFOR	0.5	:			EP SEA	CO	ne L	TYPE AN			TATION TO VIBER
31	1080	PW	2830		1.6	000 W	+	087	1		187		4.7	N06			-	4755	-	-								-	
J 1	1000	F #	2000	H	1-4	000 w	1	1001	WA		WIND	-		T A1	RTEN		71	T	14	4	0.8	2	4	X	1 1	8 2			000
									COLOR	TRANS. DI	SPE	ED A	BARO: AETER	DF	RY	WET	CODI	NO. 085.	OBSER	PEC IA									
								ļ	CODE	(m)	F ()	RCE	(mbs)	BU	LB.	BULB	-	DEPTHS	_		_								
										0	3 51	. 2	240	21	1	167	8	14											
		MESSENGR TIME	CAST	CA	20	DEPTH	(m)	,	*C	s */		IGMA-	,	SPECIFIC	vornv	^E   ₹	A D	50	UND	10	2 m1/1	PO	4-P	TOTAL-	- P	NO <sub>2</sub> -N	NO3=N	SI 04-5	рН
		HR 1/10	NO.	TY	PE								,	ANDMA	LY - #10		x 10 <sup>3</sup>	VEL	OCITY			νg	- 01/1	h3 - 01	71	ug = 01, i	νg - α† 13	ug = at	pre
			i							1																			
	,			S	TD	000	0	1	889	3516	2	519		0027	788	1 0	000	15	192										
		187	7	0 B	S	000	0	1	889	3515	7 2	519						15	192										
		187	7	OB	S	000	9	1	888	3515	7 2	519						15	193										
					TD	001			888	3516		519		0027			028		194										
			_		TD	002			885	3516		520		0027	7846	0	U 56		194										
		187	,	08		002			884	3515		520							196										
		10-			TD	003			884	3516		520		0027	786.	1 0	084		196										
		187	,	0B	5 TD	004			888 888	3515 3515		519 519		0028	207	2 ^	140		200										
		187	,	0B		007		1	000	3501		. 219		0020	5011	2 0	140	, 10	200										
		10	,		S TD	007		1	884	3509		515		0028	2/10/		210	1 16	202										
		187	7	08		009			880	3507		1514	D	0020	,47	• 0	410	, 1	202										
					ΤD	010			870	3500		512		0028	90	3 0	282	15	201										
				_	TD	012			776	3488		526		0027			353		177										
		187	7	0В		014			677	3474		539							150										
					TD	015			666	3473		541		0026	5274	+ 0	420		147										
				S	TD	020	0	1	412	3436	2	568		0023	3716	5 0	545	15	070										
		187	7	0 B		T020		1	412	3435	6 2	568						15	070										
					TD	025			182	3416		599		0020	84	3 0	656		999										
		187	7	OB		029			025	3404	_	619							949										
		1.05	•		TD	030			015	3405		620		3100	386	5 0	756		946										
		187	,	08		T039			853	3403		646		2011	10	. ^	03,		901										
					TD TD	050			833 664	3404 3406		649		0016			931 081		895										
		187	7	0B		058			566	3410		675		0013	10.	. 1	001		846										
		101			o TD	060			554	3412	_	694		0011	190	2 1	209		819										
					TD	070			499	3421		707		0010			323		814										
		187	7	ОВ		1076			468	3426		715		5010		- 1			813										
		-			TD	080			453	3429	-	719		0009	968	9 1	425		813										
					TD	090	0	0	415	3437		729		0008			517		815										
		187	7	ОВ		T094			398	3440	_	733							816										
					TD	100			381	3442		736		0008			601		818										
					TD	110			352	3445		742		0007			680		823										
					TD	120			328	3447		746		0007			754		830										
					ΤĎ	130			308	3450		750		0006			823		838										
			_	_	TD	140			293	3453		754		0006	>44	9 1	890		849										
		187	′	OB	5	1144	2	O	288	3454	6 2	756						14	854										

REFERENCE TRY ID.	SHIP	LATITUS	JE J	LON	GITUDE	DRIFT	MARS	DEN ARE	STATION 1		YEAR	CRITT		ATOR'S		DEPTH	MAX. DEPTH	ОВ	WAVE SERVATION	15	WEA+	CLOUD			NODC
ODE NO.	CODE	•	1/10		1/10	ă N	10"		MO DAY			CRUI		OITAT BMUP		BOTTOM	S'MPL"	1	NGT FER		ODE	TYPE A M	į.		NUMBER
311080	PW	2957	N	140	002 W		087	90	05 09	000	1967	NO	6 00	8		4105	15	2	2		x 2	6 8			0008
								W.A.	ER .	WIND	BAR	0-	AIR TE	MP. ℃	Vis	NO.	SPE	CIAL							
								CODE	TRANS. DIR.	SPEED OR FORC	10.00		DRY BULS	BULE	1000	DEPTHS	OBSERV	ATION 5							
									35	508	24	0	172	15	8	14									
	MESSENGI TIME HR 1/10	or NO.	C AR		DEPTH (	m I	T	*c	\$ .4.	SIG	MA-T	SPECI	FIC VOLU		€ △ 0 2 N. M x 10 <sup>3</sup>	, ,,,,	DCITY	02 ml/	PO <sub>4</sub> -P		A L P	NO2-N ug = al/l	NO3-N pg - at/1	\$1 O4-	
							١.													}					1
	0.0	0	\$1		000			728	3469		23	00	2752	3	0000		140								
	00	U	085		0000			728	34686		23			_			140								
	0.0	0	S1		001			722	3470		25	00	2735	3	0027		140								
	00	U	OBS		001			722	34695		25						140								
			S1		0021			722	3471	_	26		2727		0055		142								
	00	0	SI		0031			722	3473		27	00	2714	7	0082		144								
	00	U	0B3		003			722 72 <b>7</b>	34732 3476		27	0.0	2712	_	.1		144								
	00	0	085		005			727	34759		28	00	2712	9	0136		149								
	00	0	51		007			729	3477		29	0.0	2716	2	2201		149								
	00	0	OBS		007		1	129	34773		29	00	2715	)	0204	15	154								
	0.0	0	S1		010		1	731	34713		30	0.0	. 7717	0	2272	1.6	1.50								
	00	0	OBS		010			731	3479		30	00	2717	U	0272		159								
	00	U	S1		012			553	3469		30	0.0	2400		1221		159								
			S1		015			400	3460		163		2400		336		107								
	0.0	n	089		015			389	34594		92	00	2155	4	393		061 058								
	0.0		51		0200			271	3442		02	0.0	2047	6	)498		024								
	0.0	Ω	OBS		T020			306P			77P	00	2041	9	7490	, 10	024								
		0	51	_	0250			153	3428		14	00	1943	7	0598	1.6	990								
			51		0300			040	3416		25		1844		0692		957								
	0.0	D	089	_	030			033	34159		26	00	1044	,	0072		955								
		•	51		0400			829	3404		50	00	1613	1 (	865		893								
	00	Ω	085	-	040			827	34038		50	00	1015	•	,00,		893								
	•	0	ST		0500			544	3404		76	0.0	1366	0	1014		838								
			51		0600			512	3404		92		1209		1143		801								
	00	n	089		060.			510	34035		92	00	1209	0	1143		800								
	00		51		0700			451	3416		09	0.0	1053	2	1256										
	00	0	089		T079			406	34267		22	00	1000	٦	4200		794 793								
	30	_	51		080			405	3427		22	0.0	0926	7	1355		193 793								
			ST		0900			377	3435		31		0843		L 4 4 4		799								
	0.0	D	085		10990			354	34415		39	00	0043	٠ .	. ~ 4 4		805								
		-	ST		1000			352	3442		40	0.0	0770	4	1524		806								
			ST		1100		_	329	3448		47		0706		1598		813								
			51		1200			308	3452		52		0659		1567		822								
			ST		1300			290	3455		56		0623		1731		831								
			ST		1400			275	3456		58		0604		1792		842								
	0.0	n	OBS		T1498			262	34563		59	00	0004	,	172		853								

ID. COE		LATHTU			so:	SDEN	(G	N TIME	YEA	L C K	UISE		TION		DEPTH TO BOTTOM	MAX. DEPTH OF		DBSER	A VE VA TIC		WEA THER CODE	0	LOUD		5	NODC TATION
1	. +.	2000	1/10	1/10	10*	1,		AY HR,1/	1		NO.	NUA	A BER	-		S'MPL"	S DIF	Н	GT PER	SEA		TYP	E AMI	}	-   '	IUWBER
1 1080  PV	·   .	3009	N	14000 W	123	<u></u>	05 1			67 N		009			4609	10	0	8		ĺ	X1	1 6	5 1	ļ	-	0009
							ATER	WIND		BARO-	$\vdash$	TEMP.		VIS.	NO. OBS.		CIAL	1								
						CODE	R TRANS.	DIR.   (	۰۰ I "	METER (mbs)	BULI		VET C	006	DEPTHS	OBSERV	A TION	S								
								06 50	8	290	17	8 1	33	8	13		_	7								
MESSI TIA H.R. 1	ır öi	CAST NO.	CAR		11	ής	\$ .	/ s	IGMA-		CIFIC VI		Ş △ DYN.	0 A	SOU		02 m	1/1	PO4-		TOTAL-P µg = 01/1		02=N - 01,	NO3-N	51 O4=51 1/10 - 01/1	
1	- 1	'		1	ľ			,					,		,											
			5 T		1	7 15	3473		524	0.0	C = 7.3	1015	000		151											
-	174		085		_	7.35	347.		524						151											
1	134		URE			724	447]		52+						151											
			S.T			7 _ 4	347		524		0 7 :		002		151											
			SI			724	3473		527	0.0	0 1 7 1	.7 <sub>0</sub>	ÚJ 5	5	151											
1	07		() Hs <			7.24	347		5.27						151											
			5.1			7_4	3474		524	0.	. 71	3.7	001	ے ا	151											
1	74		0.83			724	3475		529				- 1 -		151											
			5 T			714	347.		525		0.71		01		151											
			ST			7 12	3465		457	0.	0:71	4	3-6	) 4	151											
1	74		nh5			644	3458		530						151											
			'S T		-	676	345		5 35		0,200		037		151											
			S.T			647	347		543	Ü	17,24	171	00:	1	151	35										
ī	94		OH5				3 → 70																			
			≤ T			618	346		549	0.1	0 2 5 5	0.8	04	11	151											
1	94		) is s			54_	346		553						151											
			5 T			425	345		568		0.237		0 > 2		150											
			5 T	D 0250	ł	1 17	3410		59.	0	0715	58	063	3.7	150											
1	34		JAS			174	341		594						140											
			ST		1	0.75	3416	5 2	513	0	014.	751	37.	4 ()	149											
1	94		OFS	T-0324	1	024	3418	37 2	436						149	55										
			= T		Ú	010	341	1 2	544	0	0 T P 3	154	0 4 3		140											
1	34		045	C486	C	771	3406	44 2	650						148											
			- T	0.000	0	734	3404	4 2	663		0149		10	? W	144											
			· T			544	3390	- 2	h R 7	0	111.5	593	121	lb	148											
1	94		089	0.530	Э	4 H .	339	7.3 2	₽ð]						147											
			ST	טמקה ס	0	425	340.		70L		0111	192	10	4 =	147											
ì	24		O H S	276↔		3 H 7	3400	88 2	711						147											
			5 T	0.0400	0	371	341	3 2	715	3	0000	17	1 44	4.]	147											
			SIT	n 64au	0	144	346		728	Ü	0087	724	193	14	147											
1	9.4		OAS	. T (991	J	344	3441	27 2	337						148	0.1										

								LL	11.—0											
REFERENCE CTRY ID.	SHIP	LATITUDE	LONGITUD	.a ¥	MARSDEN	STATION T	TIME	YEAR		TATION	DEPTH TO BOTTOM	MAX. DEPTH OF	00.	WAV	re TIONS	WEA- THER	CLOUD		ST	ODC
CODE NO.		1/10	* 1.	.10 =	10" 1"	MO DAY	HR,1/10		NO, N	UWBER	BOITOM	S'MPL"	DIR.	HGT	PER SEA	CODE	TYPE AMT		N	JAMBER
311080	PW	30040N	140000	DW	123 00	05 12	196	1967	N06 01	0	4554	17	09	1		x 2	6 8			0010
					WA	TER	WIND	BARC		AP. ℃ VIS.	NO.	SPE	CIAL							
					COLOR	TRANS. DIR.	SPEED OR FORCE	M ETE (mbs		WET COD BULB			ATIONS							
						11	512	29	0 183	167 8	13									
	MESSENGI TIME HR 1/10	9 NO. 11	RD DEP1	TH lml	r "c	s *4.	SIGA	/A-T	SPECIFIC VOLUE	ME SAD	A. SOU		O 2 ml/l		04-P - 01'l	TOTAL-P ug = of/I	NO2=N ug + at/l	NO3-N µg = at/1	\$1 O4-\$1 ug = at 1	рН
		, ,	TD O	000	1731	3472	25	25	002732	z 0000	່ 15:	141			1		,			
	19	6 OE	35 00	000	1731	34723	25	25			15	141								
		9	STD O	010	1723	3472	25	26	002717	9 002	7 15	141								
	19	6 OE	S 00	010	1723	34722	25	26			15	141								
				020	1721	3472	25		002718			142								
				030	1720	3472	25		002718	5 0082		143								
	19			035	1719	34718						143								
	1.0			050	1720	3472	25		002725	4 0136		146								
	19			256	1720	34719			003733	0.70		147								
				075 100	1724 1728	3474 3478	25 25		002723			152								
	20			111	1730	34791			002718	1 021		157								
	20			125	1648	34791	25		002584	7 0339		160								
			-	150	1512	3458	25		002586			137 097								
	20			167	1512	34476		04	002401	1 040.	1 15	191								
	20			200	1286	3421	25	83	002229	9 051	7 150	027								
	20			221	1209	34096			00222	, 0,1		003								
				250	1145	3412	26		002046	7 062		985								
				300	1041	3413	26		001868			957								
	20			334	0976	34131						939								
		\$	STD 04	400	0865	3406	26	46	001653	5 0898	3 14	907								
	20	2 OE	S TO	446	0790	34030	26	55			148	886								
		5	OTD 05	500	0688	3405	26	71	001418	8 105	1 148	855								
		5	STD 06	500	0538	3408	26	92	001209	3 1183	3 148	812								
	20	2 08	35 06	565	0468	34100	27	02			14	794								
		9		700	0454	3414	27	07	001071	6 129	7 14	795								
				300	0417	3426	27		000948	1 1398	3 14	798								
	20			885	0390	34334						801								
				900	0386	3434	27		000861			B 0 2								
				000	0360	3441	27		000787	0 1570		809								
	20			097	0337	34464	_					816								
				100	0336	3447	27		000722			816								
				200	0314	3451	27		000674			824								
				300	0294	3455	27		000628		-	833								
				400	0275	3457	27		000597			842								
	20			500	0258	3458	27		000575	8 190		851								
	20	2 08	05 116	655	0236	34587	27	03			148	868								

REFERENC	SHIP	LATITU	JOE	LONGITUE	Ε 🚡	801	SDEN	STATION T		YEAR	CRUISE	STA	DR'S TION		10	MAY DEPTH OF	0	WAVE ISERVATION	S	WEA- THER	CODES		5	NODC TATION UNBER
ODE NO			1.10		. 10	Z 10*	1.	MO DAY	R,1.10		NO.		MBER	В	MOTTOM !	S'MPL'S	DIR.	H GT PER	SEA.	CODE	TYPE A.M	-	N	O 44 B F M
3110	30 PW	3000	) N	14000	w	123	00	05 13	194	1967	N06 C	11		4	+663	16	0.9		3	x 2	0 8			001
31,20					.,				WIND		AIP	TEMP.	°C	1	NO.			7'	-					001
								TRANS DIR.	SPEED	1,010	ER DRY		WET C	VIS.	200	SPEC BSERVA								
							CODE	10	S12		-	-	156	+	13									
								10	312	23	1	_	-		_				-					1
	HR 1:1	OF NO.	CAR		TH [m]		r *c	2 ***	SIG	M A -1	SPECIFIC VO	_\$10°	DYN	D.)	VELOC		O3 w.	PO4-P		pg - o · i	NO 3 - 01	ug - of 1	\$1 O4-\$1 µg - q1	рН
			51		033		712	31.41.	7.5	23	კი 274	.07	200	, ^	151	4 n						ı		
	,						1712	3464		23	giri, ra	• ^ .	٠, ١, ١, ١, ١, ١, ١, ١, ١, ١, ١, ١, ١, ١,		151									
	1	* 14	7 m / 3 1		000		1712	34641 3466		26	01.71	رء	Α.	7	151									
		17.	149		J L U		* \70 r ind	240F		ie.				- '	151									
			5		023		1706	3456		24	F. 7.	· a	0.03	-, -,	151									
					1140		7.75	5466		_ 5	. 7		0.7		151									
	1	4.4	0.5		J 35		705	34657		25		- 0 -	, , ,		151									
					neu.		1754	1452		27	10272	1.7	1.	4.6	151									
		Jan	0.3		w 5 o		1710	34596		2.2		- 1		-	151									
		-			75		169h	3467		<u> </u>	ug 7:	118			151									
			,		100		1674	346		31	3616		32		15:									
	1	) <sub>(m</sub>	-, _, .		111		1671	34638		, 2					151									
	_				125		1584	3456		45	10256	538		4 5	151	15								
			5.		150		443	3442	2.6	. ~	1023		130	0.0	15]	73								
			112		165			24332																
							12.7	34.1	. 5	30	27215	145	0.5	1.4	145	5								
		14	185	7.5	221		1127	3-21-	2.5	G (e					146	73								
				r îi î	250		1053	34 3	2 h	1	119	7.)+	_ 0	15	149	5.7								
			5.	10 1	370		957	34,5	2 =	3.0	0.3179	959	. 7		140	2 -								
		14.		-	335		395	3 4 57	2 5	42					149	2 7								
			5.	r )			7=2	34.1	26	5.4	1015.	9.	15	75	149									
		1.4	19		44.		158.	33493	< 6	57					J + 5									
			0.0		5 D.J.		16.8	34.3		9 ]	0014				144									
					n lu		)0	3411		9.5	11.14	49.	11	4	146									
	1.	5 <sub>→</sub>			555		0453	34145		0.5					147									
					700		1446	3414	2.7		0.10		14		147									
					e Jii		)4 0	3425		c ±	1004.	387	1.5	5.2	1 4 7									
	1	d in			554		1 -83	34326		. 0					147									
					4 , )		179	3434		3.0	00045		- "+		147									
					HJ.		357	3441		134	2017	43t	10.	2.1	148									
	1	4 14	2.51		000		1337	34461							148									
					100		335	3446		44	g nu 7;		15		149									
					300		0316	3449		48	0006		15		148									
					300		0297	3451		150	0000		1.7		148									
					4		1279	3453		155	0000		15		148									
				10 1	55.		Cler	2400	4	7 S H	0000	-11	13	62	145									
	1	54	G.E.	_ T 1	n4 -		0 2 4 .	34585	1.7	163					149	60								

REFERENCE	- 51	HIP ODE	LATITU		LON	GITUDE	DRIFE	M.A.R. SQU	APE		MTI		YEAR	CRUISI	5	ATOR'S		DEP TI BOTT	0	MAX. DEPTH OF			TIONS	WEA- THER CODE	CLOUE	5		NOD: STATIC NUMB	N
ON IDE	- +-	-		1/10		17/10	-	10*	1*	MO D	AY HS	8,1/10		NO.	-	NU M BER	-			S'MPL'S	() 1R.	HGT	PER SEA	10000	TYPE A.A	A T	-		_
31 108	30 F	W	3000	N	14	000 w		123					967					45	72	17	09	4	2	X 5	6 5	1		00	12
									WA	- +	W	SPEED	BAR	>- <del> </del> —	AIR TE		vis.	NO OB	ne l		CIAL								
									COLOR	TRANS,	DIR.	OR FORCE	METS (mbs		DRY ULB	BULB	CODE	DEP		OBSERV	ZNOTA								
											0.8	\$15	29	, ,	72	150	17	1	3										
			1 1					1		$\vdash$	00		1 2 /				1.	-				-					1		_
		SSENGR TIME (		CAR	RD PE	DEPTH	(m)	T	*C	ς.	4.	SIGM	A = T		VOLU	M.E. C	AN. M	.   ,	VELO SOU		02 ml/		04-P - at/1	TOTAL-P	NO2-N µg = 01, l	NO3-N			рН
	HR	1/10						-		-							x 10 <sup>3</sup>	+-		-		-		py - 0	pg - 0.7.	pg - 07	pg - 01	-	
			] [																										
					TD	000			741	348		252		002	2701	9	000		151										
		197	,	ОВ		000			741	347		252			70.				151										
		197	,	_	Τ0	001		_	741 741	347 347		252		004	2706	6	027		151										
		191		08	S TD	002			740	347		252 252		00	2707	2 6	054		15) 15)										
				_	TD	002			739	347		252			708		081		151										
		197	,	OB		003			738	347		252		007	,,,,	, (	001		15										
		171			10	005			739	347		252		003	716	6 (	135			153									
		197	,	08		005			740	347		252		001	. , 10	0 (	1 2 2			154									
					TD	007			738	347		252		002	2721	4 (	203		15										
				S	TD	010	Ū	1	736	348	0	252			723		271			160									
		197	7	08	S	011	1	1	735	347	96	252	9						15	162									
					TD	012			644	346		254			2614		338		15										
			_		TD	015		1	495	344		255	9	00	445	6	401		15(	090									
		197	7	ОВ	-	016		,	24.6	343		25.6		00	205	, ,			15										
		197	,	OB	TD	020 T022			246 154	341 340		258 259		002	205	4 (	518		150	983									
		171			5 TO	025			089	340		260		00	2004	, ,	623		140										
					TD	030			977	340		262			818		719			932									
		197	,	ОВ		033			906	340		263				- (				912									
					TD	040			781	340		265		00	1563	7 (	888		148										
		197	,	QВ	S	T044	4	0	708	339	94	266								853									
				S	TD	050	0	0	627	340	2	267	7	00	355	8 1	034	,	148	831									
				S	TD	060	0		511	340		269	5	00	182	4 ]	161		148	801									
		197	7	ОВ		066			457	341		270								790									
					TO.	070			441	341		271			1034		271		14										
				-	TD	080			402	342		272		000	923	2 1	369		14										
		197	'	OB		1088			377	343		273		0.07	1021	, ,	4.53		147										
					TO TD	090 100			373 351	343 344		273			)831 )769		457 537		148	797									
		197	7	0B		T109			332	344		274		000	, 109	د ا	151		148										
		171	1		7D	1109			331	344	-	274		0.07	716	5 1	611		148										
					TD	120			312	345		275			671		681		148										
					TD	130			294	345		275			635		746		148										
					TO	140			277	345		275			)599		808		148										
					TD	150			261	345		276			1579		867		148										
		197	7	ΟВ	S	1165	2	0	240	345	82	276	3							869									

MESSENCE NO. CODE NO.	S OB S OB S S OB S S S S S S S S S S S S	TO 0000 S 0000 TD 0010 S 0020 S 0020 S TD 0050 S 0090 TD 0070 S 0090 S 00	190 190 190 190 190 190 190 190 190 190	WAT COLOR CODE	05 16 FR   OR   S * 4.   3524   3523   35234   3523   35234   3521   3516   3516   3516   3516   3516   3516   3516   3516   3512   35042   35	SIG	MA-T  MA-T  511  511  511  512  514  514  517  517	O- AIR T	36 00 67 53	C VIS	NO. 0855 0856 13 SOUND VELOCITY 15209 15209 15210 15210 15210 15208 15208 15208	PECIAL RVATION  O2 m	5 2	04-P	x 1	6	5 5 5 · ot 1	NO3-N µg - at 'l	\$1.⊙4.~S µg = a1	0013
MESSENGE TIME O HR 1/10	S OB S S S S S S S S S	TD 0000 S 0000 TD 0010 S 0020 S 0020 TD 0030 S 0044 TD 0050 TD 0070 TD	190 190 190 190 190 190 190 190 190 190	WAT COLOR CODE 16 16 16 16 16 16 16 16 16 16 16 16 16	3524 3523 3523 3523 3523 3523 3521 35160 3516 3516 3516 3516	SPEED   STOPE   STOP	MA-T  MA-T	00 AIR TO PY SING BULE SIN	WE   WE   WE   WE   WE   WE   WE   WE	© VIS ET CODE   12	NO. 0855 0856 13 SOUND VELOCITY 15209 15209 15210 15210 15210 15208 15208 15208	PECIAL RVATION O <sub>2</sub> m	S PC	04~P	TOTAL-F	NO	2-N			
064 064 064 064 064	S OB S OB S S OB S S S S S S S S S S S S	TD G0000 S 0000 TD 0010 S 0010 TD 0020 S 0048 TD 0050 TD 0070 S 0090 TD 0070 S	190 190 190 190 190 190 190 190 190 190	944 944 935 926 924 897 896 885 818	3524 3523 3523 3523 3523 3523 3523 3521 35160 3516 3516 3516	SPEED   SIG	MA-T  MA-T	00 286 00 287 00 284 00 282	36 00 67 53	ET COOE 1.8 COOE 56  E A D DYN, M. x 103  0000  0029  0057	0850 DEFTMS 0850 13 SOUND VELOCITY 15209 15210 15210 15210 15208 15208 15208	02 m	PC							н
064 064 064 064 064	S OB S OB S S OB S S S S S S S S S S S S	TD G0000 S 0000 TD 0010 S 0010 TD 0020 S 0048 TD 0050 TD 0070 S 0090 TD 0070 S	190 190 190 190 190 190 190 190 190 190	944 944 944 930 926 924 897 896 805 818	3524 3523 3523 3523 3523 3521 35160 3516 3512 35042	SIG SIG SIG SIG SIG SIG SIG SIG SIG SIG	MA-T  MA-T  511  511  511  512  514  514  517  517	00286 00287 00284 00284	36 00 67 53	ET COOE  56   SAD  DYN. M.  x 10 <sup>3</sup> 0000  0029  0057	0052 13 SOUND VELOCITY 15209 15210 15210 15210 15208 15208 15208	02 m	PC							н
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				334	34266		78				15044									
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064				997	34066		25				14939									
064		TD 0300		991	3406		525	00183	62	0730	14938									
				810	34028		552				14835									
		TD 0400		801	3403		553	00157		0901	14883									
		TD 0500		650	3407		578	00134	97	1048	14841									
064				553	34116		93				14817									
		TD 0600		547	3412		94	00119		1175	14816									
		TD 0700		497	3420		707	00107	94	1288	14813									
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		TD 1200 TD 1300		325	3447		746	00071		1719	14828									
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REFERENCE	SHIP				- E	MARS	DEN	STATION	TIME	Ţ			ORIGIN	ATOP*	5	DEPT	n   r	MAX.		WAV	E	WEA				NODC
TRY ID.	CODE	LATITU	1/10	LONGITUDE 1/10	IN DC1	10"	ARE I	MO DAY	HR.1/		EAR	CRUIS NO.		OITATIO NUMBI		10 80110		OF 'MPL'S	O8 DIR	SERVA	FIONS	COC				TATION 1UMBER
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	MESSENG TIME HR 1/1	I NO.	C A P D TYPE	DEPTH	lm l	1	°C	s */.		SIGMA	1-1	SPECIFI	C VOLU	M E 0 7	\$ △ D DYN, A x 10 <sup>3</sup>	2. V	ELOCI		02 ml/		4-P	1014L- pg - 01/		NO3-N ug - al/l	SI O4-S µg - at	рН
			ST				871	3513		252		00.	2766	5	0000	0 1	518	87								
	18	15	085	000			871	3512		252							.518									
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	-		ST				736	3479		252		0.0	271a	3	020		51									
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	18	5	085			1	340	3421		257							504									
			ST		0	1	145	3414		260	4	002	2032	U	064		498									
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			51				814	3405		265		00	1586	8	090		488									
	18	5	095				799	3404		265							488									
			ST				628	3406		267			1329		105		48									
			5 <b>T</b> I				495	3407		269		00	1160	6	117		47									
	18	5	085	061			485	3407	-	269		0.0		,	170		479									
			STI				444	3418		271			1030		128		479									
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			ST				294	3451		275			0659		176		48									
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		TIME 6	NO,	TYPE	0	Erits imi	İ		,	٠/	SIGM	A — T		WALY-X1		DYN. M x 10 <sup>3</sup>		VELO		03 ш	173	pg - 0		vg - 01/1	μg - σI-		- al/l	µg - ol	
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		186		085		0010		1790		345	252		00			5520		151											
				ST		0020		1752	34		252		00.	2759	9	0056		151											
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		186		083		1099		1733		798	253	0						151	59										
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				ST		125		1705	34		253		00.	2703	7	0342		151	54										
				ST		150		1677	346		253		00.	2693	8	0409		151	49										
		186		085		151		1676		70	253							151											
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				ST		100		0330	344		274			725		1630		148 148											
				ST		200		0310	344		274			688		1700		148											
				ST	_	300		0293	345		275			055		1768		48											
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		186		OBS		496		Ü264	345		275	-	- 0 (		-			48											

NO.	DE DE	LATITU		LON	GITUDE	S SO	RSDEN UARE		MT)		YEAR	CRUISE	ORIGIN A	ATION		DEPTH TO BOTTOM	DEPTH	1	WAVE SERVATIONS	000	CODES	-	S	NODC TATION LUMBER
.40.			1/10		1/10	10.	1.	MO D	AY H	R.1/10		NO.	N	UMBER	-		S"MPL"	S DIR.	HIGT PER S	EA O	TYPE A A	7		
080 P	W	3003	ÜN	139	9590W	122	2 09	05 1	9	186	1967	N06	01	7		4114	37	16	4 2	X ]	44			0017
,							WA	TER	-	VIND	BAR	1	AIR TEM		vis	NO.	en:	CIAL	]					
							COLOR	TRANS.	DIR.	SPEED	WET	ER I	DRY	WET	CODE	OBS. DEPTHS		ATIONS						
							CODE	lm)		FORCE	(mb	6) 8	ULB	BULB		DEFINS								
									17	515	21	7 2	00	194	8	18								
AA F S	SENGR	5 1 5 7	CAR					1				CRECIEI	. VOLUA	us :	E A D	50	UND		PO4-P	TOTAL	P NO2-N	NO3-N	\$104-5	
1	IMI 0	NO.	TYP	£	DEPTH Im!		1 °C	5 .	۷.,	SIGN	4 A -T	ANOM	ALY-X10	5	x 10 <sup>3</sup>	VEL	OCITY	02 ml/	pg = 01/1	pg - pt/		µg - 01/1	μg + α1/3	pН
HR	1 ′10			-				-		+		-				+			+	+	1			-
					0000		1021	1 2		2.5		000	707	.		1 2 6	171				1			1
				Tυ	0000		1824	349		25		002	7874	4 (	0000		171							
	186		OB:		0000		1824	349		25							171							
	186		OB:		0010		1817	349 349		25 25		00	2770	, /	0028		171							
				T 2			1814										162							
				TD TD	0030		1786 1764	348 348		25 25			765° 761		0055 0083		157							
	186		0B.		0033		1758	347		25		002	. 701	, ,	, , , ,		156							
	100			S TD	0050		1734	347		25		003	728	2 (	138		151							
	186		08		0051		1733	347		25		302	. , Z d .	۰ ۱	0		151							
	100			TD.	0075		1735	347		25		002	2720	6 (	206		155							
				TD	0100		1737	348		25			710		274		161							
	186		0 B		0103		1737	348		25		001					161							
				70	0125		1654	346		25		002	651	0 (	341		138							
				TD	0150		1546	344		25			2553		0406		106							
	186		OB.		0154		1527	344		25		-					101							
				CT	0200		1280	341		25		002	2255	1 (	0526		024							
	186		OB.		T0205		1257	341		25						15	017							
				TD	0250		1119	341	2	26	07	002	2003	4 (	0633	14	976							
				TD	0300		0982	340	9	26	29	001	1797	8 (	728	14	935							
	186		09	S	0304		0972	340	100	26	31					14	932							
			S	TO	0400		0777	340	2	26	56	001	1549	0 (	895	14	873							
	186		ΟВ	S	0403			340	20															
			S	TD	0500		0617	340	3	26	79	001	1333	0	1039		827							
	186		0 B	\$	0597		0506	340	46	26	93						798							
			S	T D	0600		0504	340	5	26	94		1188		1165		798							
				TD	0700		0450	341		27		001	1059	5	1278		793							
	186		ОВ		10789		0411	342		27							793							
				1 D	0800		0407	342		27			943		1378		793							
				1 D	0900		0377	343		27		000	843	3	1467		799							
	186	•	08		10978		0357	344		27							804							
				TD	1000		0356	344		27			775		1548		807							
				10	1100		0352	344		27			748		1624		823							
				TD	1200		0344	345			47		716		1698		837							
				10	1300		0333	345			50		0688		1768		849							
				TD	1400		0319	345			53	000	0664	2	1835		1860							
	186	)	08		T1462		0309	345			55	001	2/20	7	1000		+867							
				TD	1500		0298	345			57		0630		1900		869							
	200			T D	1750		0236	346			64	000	0548		2048		+884 +895							
	205	7	08		T1866		0215	346			67	0.04	0504	я	2179		+913							
	20.5			T D	2000		0203				69 73	000	J D U 4	o	C 1 1 7		970							
	20 5		08		T2404 2500		0174	346 346			74	004	0460	Ο	2420		984							
	105			T D	T2946		0176				75	000	J-00	9	2 <del>-</del> 2 (		055							
	205	,	UB.				0155	346			76	00/	0448	1	2647		0054							
	200			TD	3000			346			77	000	J B	*	2041		139							
	205		08 08		3438 T3669		0150	346			78						179							
	205																							

Table III. Observed and interpolated oceanographic data for stations taken by USCGC WINONA at Ocean Station NOVEMBER, 15 June-1 July 1967, prepared from NODC Listing No. 31-1083 WI.

REFERENCE	SHIF			1000		F E	MAR	SDEN	STATE	IT NC	ME	V6.4				ATOR'S	_	DEPTH	MAX. DEPTH		WAVE ERVATION	,	WEA-	CLOUD			NODC
CTRY ID.	CODE	LATITU		LONG	30011	DRIFT						YEAR	R	CRUISE NO.		TATION		BOTTON	. OF				CODE	CODES	1		NUMBER
			1/10		1/10		10*	+ -	_	AY H			-	-					3 mrt.	DIR	HGT PEP	SEA		TYPE A M	7	-	
31108	3 W I	2959	N	140	07 W		087	90	06 1	5 2	18	196	7	NO 7	00	1		4389	15	04	3 2		X1	7 1			0001
								WAT	ER	W	IND	B,	ARO:	_ A	IR TEA	M.P. °C	V15.	NO.	SPE	LAI							
								COLOR	TRANS,	DIR.	SPEED	1 "	ETER		RY	WET	COD	OBS.	OBSERV	ZMOITA							
								CODE	[04]	_	FORC	`	mbsl	80	ILB	80 € 8	-	-	-								
										01	S05	5 2	240	1	92	15	3 7	14									
1	MESSENGA	CAST	CAR	n			Ι.			. ,			T	SPECIFIC	VOLUE	M.E.	≨ ∆ 0	50	UND		PO4-P	1,0	TA L-P	NO2-N	NO3-N	5104-5	
	TIME HR 1/10	약 NO.	TYP		DEPTH	(m)	'	*€	5	·	SIG	MA-T		ANOMA		07	χ 10 <sup>3</sup>	VEU	OCITY	02 ml/l	VQ = 01/		g - o1/I	µg - a1/1	μg - αI/I	ug - al	
	HK 1710	+		+					+				+			-		-	-		+	+					-
	1	1 1	٠,	-	000	0	1	0.71	267		1 2/	0.0		000	1	, !	2000	1.0	244		i	1					1
	23.		51		000			071	352			80		003	153	4	0000		244								
	21	8	OBS		000			2071	352			80		0.00					244								
	21	0	S1		001			031	352			91		003	060	8	0031		235								
	21	O	0B5		001			03 <b>1</b>	352 352			91		003	34.0	0	207		235								
			5 I		002			029	352			+91 +91		003			3062		236								
	21	я	089		003			2027	352			91		003	074	ا د	0092		237								
	2.1		S1		005			027	352			91		003	067	2	0154		240								
	211	Ω	0B5		005			2027	352			91		003	001	2	1194		240								
	2.10	0	S1		007			852	350			21		002	705	0	0227		193								
	21	я	085		007			847	350			521		002	. , ,	•	0-2		192								
		C	S1		010			793	349			529		002	721		296		179								
	218	R	OBS		010			789	349	-		30		002	121	) '	1290		178								
		o .	S1		012			759	349			31		002	700		364		172								
			51		015			.687	347	-		39		002			343(		153								
	21	0	089		015			.672	347			41		002	038	4 1	J43(		149								
	21	a	51		020			404	343			70		002	260	0	0555		068								
	21	0	0B3		T020			358	342			75		002	224	0 1	J > 5		053								
	2. 1.	O	S1		025			192	341			00		002	0.90	۷ ,	3666		003								
			51		030			027	341			22		001			765		951								
	21	8	OBS		031			999	340			26		001	00,		5,0.		943								
		-	51		040			832	340			49		001	617	6	939		894								
	21:	8	089		1041			809	340			52		001					888								
			51		050			639	340			76		001	363	7	1098		836								
			S1		060		_	498	340	_		93		001			1216		795								
	21	8	085		061			482	340			95				_	- `		791								
			51		070			435	341			709		001	049	2	1329		787								
			S1		080			394	342			722		000			1428		788								
	218	8	0В5		T081			389	342			123		,		-			788								
		-	ŝi		090			374	343			731		000	847	2	1516		797								
			51		100			356	344			738		000			1598		807								
	21	8	085		T101			353	344			739							809								
			51		110			338	344			745		000	724	6	1673		817								
			Si		120			320	345			750		000			1744		827								
			51		130			301	345			754		000			1810		836								
			S1		140			282	345			757		000			1873		845								
			S1	TD	150	0		263	345			759		000			1933		853								
	21	8	089	5	T152	8		258	345			759							856								

SHI	1P	LATITUI	0.5	101	GITUDE	MA SO	RSDEN UARE	STATION IGA	N TIAN		ΔR		ORIGIN			DEP	th   ,	MAX. DEPTH	OR	WAVE	ONS	WEA-	CLC				NODC TATION
coc		·	1/10	LUN	1/10	10.	1.		r HP.1			CRUIS NO.		HATE MUN		BOTT	211	OF 'MPL'S		HGT PE		0001	TYPE				UMBER
+		2000		1								_	+								1						
3 W.	1   1	3003	2 N	140	0015W	12.	3 UO		18		967	INO	7 00		-	477		15	49	0 X		X 1	0	6		1	000
							-		WIN	PEED	BARO		DRY	wi	V15			SPEC									
							COLOR	TRANS. D	HIR	OR OPCE	{mbs		BULB	811		DEPT		R7£KA	A TION S								
								1	_	04	22	5	198	1	53 7	14		_									
				1							-	-		-		Ť											
AA ESS	ENGR	CAST NO.	CAR		DEPTH (m	>)	7 °C	5 .		SIGMA	-T	SPECIF	MALY-XI	6.7 0.7	₹ A I	W	SOUNI		02 mV	PO 4		TOTAL-P	NO <sub>2</sub> -		NO3-N yg = pi/!	12-40-15 1 10 - gu	рН
HR	1.10			_										_	x 10 <sup>2</sup>			-			-				pg - 517.	7,	-
																					-			-			
				TD	0000		2042	3529		248		00	3072	8	000		152										
	187		089		0000		2042	3528		248							52										
				Tυ	0010		2032	3529		249		0.0	3052	5	003		52										
	187		053		0010		2032	3528		249		0.0	2000	,	0.0		152										
				T D	0020		1992	3525		249			2981		006		152										
				TD	0030		1951	3521		250		0.0	2915	4	009		152										
	187		089		0030		1951	3520		250		0.5	3 <b>3</b> 0 -		0.1.		152										
	107		-	T C:	0050		1866	3510		252		00	2 <b>7</b> 89	Ų	014		151										
	187		OBS	S TÜ	0050		1866 1811	3510 3496		252 252			2770	. 1	041		151 <sup>1</sup>										
	187		089		0075		1811	3496		252		00	2110	1	021		151										
	101			5 T.)	0100		1751	3491		253		0.0	2674	5	048		151										
	187		05:		0101		1749	3490		253		00	2014	, ,	040		151										
	107			ΤU	0125		1744	3490		253		0.0	2673	6	035		151										
				TD	0150		1681	3481		254			2603		041		151										
	187		089	S	0152		1673	3479	4	254							151	50									
			5	T D	0200	)	1356	3431	Ł	257	6	00	2293	0	054	0	150	51									
	187		089	S	0207	7	1318	3425	7	258	0						150.	39									
				T D	0250		1167	3419		260			2035		064		149										
				TD	0300		1021	3412		262		00	1842	2	074		149										
	187		OB:		0308		1001	3411		262				_			149										
				TD	0400		0835	3404		264		UQ	1622	2	091		148										
	187		0B:		10409		0819	3403		265		0.0	1250	. 2	10-		148										
				TD.	0500		0640	3404		267			1359		106		148										
	107			T D	0600		0501	3404		269		00	1190	17	119	-	147' 147'										
	187		089	S TD	0610		0490 0445	3416		269 270		0.0	1046	. 1	130		147										
				TD.	0800		0445	3421		272			0927		140		147										
	187		0B:		10805		3404	3421		272		0.0	0721	J	1.0	_	147										
	101			s TD	0900		0381	3434	-	273		0.0	0855	. 2	149		148										
				T D	1000		0357	344		273			0783		157		148										
	187		08:		T1006		0356	344		273		00	0103	0	101		148										
	201			JD.	1100		0335	3446		274		0.0	0728	3.5	165		148										
				TD	1200		0314	345		275			0674		172		148										
				TD	1300		0295	345		275			0636		178		148										
			_	TD	1400		0277	3456		275			0607		185		148										
				TD	1500		0260	3450		275			0592		191	0	148	52									
	187		ов:		T1516		0257	3450	54	276							148	54									

EFERENC BY ID.	Η,	SHIP	LATITU	DE	LON	GITUDE STORE	MARS SQU	DEN		ION T	M.E	YEAR	CRUIT	ORIGINA	ATOR'S	,	DEPTH	DEF	TH	08	WAV SEPVA		w E	ER	CLOU			N ST	ODC
DE NO	. [	.000		1/10		1/10	10"	1*	MO 1	DAY H	P,1/10		NO		UMBE		BOTTOA	N S'ME		DiF	HGT 9	ER SE	4 CO	DE -	TYPE A	ΑŤ			U M BEP
31/108	3 3	WI	3006	4 N	140	W0800	123	00	06	17	186	1967	NO	7 00	3		4633	3 1	5	19	2	5	X	1	6 6				0003
							[	W.A.	I E R	v	/IND	BAR	1	AIR TEA			NO.	T			-	- 1	1 /		0 . (	,			3003
								COLOR	TRANS.	DIR	SPEED	MET	ER	DRY	WET		OPE	0000	PECIA										
								CODE	lm I		FORCE	+		BULB	BULE	-	-	,											
	_		,				,			29	503	21	0	172	16	3 7	14												
	M	TIME I		CARE		DEPTH (m)	, T	°C		٠/	215.4	1-AA	SPECII	ic volue	ME	ξ Δ D SYN, M	so	UND			PO	4-P	TOTA L-	- 2 1	40 <sub>2</sub> -N	NO3~	N SLC	) <sub>4</sub> -Si	
	н	R 1/10	NO.	TYPE		DET TIT DATE		-	1		310 %	n = 1	ANO	MALY-X10	27	x 10 <sup>3</sup>	VEL	OCITY		2 ml/l		- 01 1	μg - αt		ig = a!/			- at I	pН
											1										_			-					
				ST	D	0000	2	061	35	30	241	85	00	5113.	3 '	0000	15	241						1			1		
		186	5	085		0000	2	061	35.	299	241							241											
				ST	D	0010	2	047	35.	29	24		00	3088	4	0031		239											
		18€	5	QBS		0010	4	047	35.	289	241							239											
				ST	D	0020	2	015	35.	28	24		00	3016	7	0062		232											
				ST	D	0030		982	35.		251			2943		0091		224											
		186		085	3	0030	1	982		272	251		- 0	_,,,	-	,		224											
				ST	D	0050	1	914	3.5		25		0.0	2909	7	150		207											
		18€		OBS		0050		914		397	250		00	_,,,	1			207											
				ST	ō	0075	1	821	351	0.1	25		0.0	2759	7	0421		183											
		186	5	OBS		0075		821		J07	25		00		•	J- 2 1		183											
				SI	D	0100	1	765	34	93	25		0.0	2689	5	289		170											
		186		OBS		0100		765		934	25							170											
				ST	0	0125		720	341		25		0.0	2662		356		160											
				5.1	D	0150	1	635	34	70	25			2580		0421		137											
		186		085	i	0153	1	622	341	579	25				_			133											
				ST	D	0200		323	34.	26	25		0.0	22641	В	1542		040											
		186	5	OBS	,	T0207	1	287	34.	219	258	83						028											
				ST	D	0250	1	163	34	20	260	0.6	0.0	20204	4	1650		993											
				ST	D	0300	10	35	34	16	26			18364		746		955											
		186	5	085		0309	1	014	34	157	262							949											
				ST	D	0400	0	836	340	) 4	264		0.0	1623	7	919		896											
		186	)	085	i	T0413		812		34	265		- 0					889											
				ST	D	0500	0	643	340		26		0.0	13669	9	068		837											
				ST	D	0600	0	504	340		269			11998		197		798											
		186		OBS		0613	0	490		35	26			/	-			794											
				ST	D	0700	0	445	34	15	270		00	10536	5	1309		791											
				ST	D	0800	04	404	342	26	272	2.2	0.0	09329		409		792											
		186	)	085		T0808	0.4	401	342	266	272							792											
				ST	D	0900	0	379	34	34	273	3.0	0.0	08530	)	498		799											
				ST		1000	0	356	344	+1	273			07824		580		807											
		186		OBS		T1006	0 :	355	344	+13	273	39						808											
				ST		1100	0	335	344	+7	274	45	00	07211	1	655		816											
				SI	D	1200	0:	314	345	51	275	50	0.0	06742	2	725		824											
				ST		1300	0.	295	345	54	275	54	0.0	06366	5	790		833											
				ST	D	1400	0;	276	345	6	275	5.8	0.0	06059	9	852		842											
		187	•	085		1496	0.	260	345	560	275	59						851											

ERENCE					MAR	EDEN T	STATIO	N TIME		1	CR	IGINA	TOP'S	1	DERTH	MA		W A	√E	WEA-	CLOUD	T		NORC
y 10.	CODE	LATITU	DE L	ONGITUDE	sau		(GA	AT)	Y	EAR ;	CRUISE		ATION	-	DEPTH TO	0.5			ATIONS	THER	CODES		5	NOUC TATION
E NO.	1000	•	1/10	1/10	10*	13.	MO DA	Y HR.1	/10		NO.		J M BER		BOTTO	S'MP		НG	PER SEA	CODE	TYPE AW	F	N	UMBER
11083	WI	2959	6N 1	40043W	087	90	06 18	3 17	7 1	967	NO 7	004			4846	1	5 05	3	6	x 2	6 8			0004
						WAT	ER	WIN	0	BARO	AIR	TEM			NO.	Ţ.,	ECIAL	٦.						
						COLOR	TRANS.	IR.	DR DR	METER	DR		WET	CODE	OBS. DEPTH	OBSER	VATION!	2						
						CODE			DRCE	(mbs)	_	-			_	-		-						
				,				28   5	03	210	19	7	166	7	14	l		1,					,	
	MESSENGR TIME	CAST	CARD	DEPTH (m)	1 1	°C	s -/.		SIGMA	т.	SPECIFIC V	OLUN		∆ n.		UND	0 2 ml		PO 4-P	TOTAL-P	NO2-N	NO3-N	\$104-5	рН
	HR 1/10		TYPE		+	-	' '			.	ANOMAL	y x 1 0	X	103	\ \AEI	OCITY		þ	g = 01/1	1\10 • gu	μg - α1/1	yg - 01/l	µg - 01/1	"
							1														-			
	1	' '	STE	0000	2	070	3528	3	248	1 '	0031	494	00	000	1 1	5243			1					
	177	7	OBS	0000		070	3528		248			. ,		- 0 0		243								
			STO	0010	2	062	3528	3	248	3	0031	333	00	31		5243								
	177	7	OBS	0010	2	062	3528	30	248	3						5243								
			STE		2	053	3528		248	5	0031	153		063		242								
			STE			044	3528		248		0030	974	00	94		241								
	171	7	OBS	0030	2	044	3521	76	248	7					1 5	241								
			STI			887	350		251	2	0028	650	0	153	1 !	5199								
	177	7	OBS	0050		887	3506		251							5199								
			STL			848	350		252		0027	768	0.	224		5192								
	17	7	OBS	0075		848	350		252			_				192								
		_	STU			774	3494		253		0027	032	. 0.	292		5173								
	177	7	OBS	0100		774	3494		253							5173								
			STE			703	3481		253		0026			359		5155								
	17-	7	STO			613	3466	-	254		0025	000	, 0.	+24		5130								
	177	1	OBS	0152		605	3464		254		0033	1				5127								
	17.	,	STI OBS	T0208		364	3430		257		0023	100	. 0:	46		5054								
	177	1	STO			328 165	341		257 260		0020	1.60		555		5043 4993								
			STO			010	340		262		0018			753		4945								
	177	7	QBS	0305		1997	340		202		0010	7)(	, ,	, ,,,		4941								
	17	/	ST	-	-	835	340		264		0016	٦		726		4896								
	17	7	085	10405		826	340		265		0010		. 0	/ 40		4893 4893								
	11	•	ST			634	340		267		0013	549	1 1	3 7 5		4892 4834								
			STE	-		1492	340		269		0013			J 13 202		4034 4793								
	17	7	0Bs	0609		482	340		269		0011	501		- 0 2		4790								
			STE			1436	3415		270		0010	430	1	314		4788								
			STO			397	3426		272		0009			+12		4789								
	17	7	085	0803		394	342		272				•			4789								
			ST			372	3435		273		0008	375	1	500		4797								
			STE		C	351	3442	2	274		0007	692	1	580		4805								
	17	7	OBS	T1008	C	349	344	22	274							4806								
			ST	1100	C	331	344	5	274	4	0007	342	2 1	656		4814								
			ST	1200	C	312	344	7	274	8	0006	99;	2 1	727	1	4823								
			STO	1300	C	1296	3450	)	275	1	0006	680	) 1	796	1	4833								
			ST	1400	0	281	345	3	275	5	0006	36	7 1	861	1	4844								
			ST	1500	C	268	345	5	275	ō	0006	08	1	923	1	4855								
	17	7	085	11522	C	265	3455	58	275	9					1	4858								

REFERENCE	SHIP	LATITUDE	LONG	110t F	MARS SQU	OEN	DITATE	N TIM		YEAR	ORIGINA				DEPTH	MAX. DEPTH			WAVE BSERVATIONS		WE		CLOUD			NOOC
CODE NO.	CODE	1/10		1/10	10*		MO D			I C M R	CRUISE NO.		TATIO		BOTTOM	OF S'MPL'S	1		GT PER			× -	TYPE AM			NUMBER
311083	I W	30001N	1400	028w	123	00	06 1	9 18	36 1	967	NO7	00	5		4361	15	0	16	2 3		X	1	6 7			0005
						WA1		4IW		BARC	)- ⊢	IR TEA	_	vis	NO.	SPE	CIAL									
						COLOR	TRANS.	DIR.	OR FORCE	METE (mbs		ULB	W E 1	CODE	OBS. DEPTHS	OBSERV		NS								
									05	22	8 2	11	17	0 7	13											
	MESSENGR				T		T				SPECIFIC				4					. T		Τ.				
	TIME 0	NO.	PPE PPE	DEPTH (m)	T	°C	ς.	٠.	SIGM	A = T		ALY-X1	0,	₹ ∆ D DYN. M x 10 <sup>3</sup>	. AETO	CITY	02 1	mIZI.	PO4-		TOTAL- ug = ot.		NO2-N µg • al/l	NO3-N ug - at/1	NB - 04.	рн
			STD	0000		095	352		247		003	223	2	0000	15.	250										
	185			0000		095	352		247							250										
			STD	0010		057	352		248		003	140	7	0032		241										
	185			0010		057	352		248		000		-	0012		241										
			5 T D	0020		025	352		248		_	076		0063		234										
	189		STD	0030		990 986	352		249		003	006	0	0093	-	226										
	10:		5TO	0050		876	352 350		249 251		003	858	L.	0152		225 195										
			510	0075		781	349		252			743		0222		170										
	185			0077		776	348		252		002	145	5	0 4 2 2		169										
	102		510	0100		746	348		253		00.2	692	n	0290		164										
	185			0103		741	348		253		002	072	•	0295		163										
	102		510	0125		721	348		253		002	686	1	Q357		160										
			510	0150		652	347		254			610		0423		142										
	185			0159		615	346	_	254		002	010	0	0.25		132										
			510	0200		338	343		257		002	264	8	0545		045										
	189			T0211		278	342		258							026										
			510	0250		161	341		260		002	038	8	0653		992										
		5	STD	0300	1	029	341	1	262	3	001	863	0	0750	14	952										
	185	o O E	3 S	0311	1	003	341	01	262	7					14	944										
		5	ST D	0400	0	829	340	4	265	0	001	613	1	0924	14	893										
	185			T0410		811	340		265						14	888										
			510	0500		641	340		267			367		1073		836										
			STD	0600		503	340		269		001	203	7	1202		797										
	185			0616		486	340		269							793										
			5TD	0700		441	341	-	270			048		1314		790										
	100		STD .	0800		398	342		272		000	926	Ú	1413		790										
	185		55 5TO	T0818 0900		392 375	342		272	-	000	07.1	^	1501		790										
			STD	1000		354	343		273			841	-	1501 1582		798										
	189			1000		350	344		273		000	772	'	1102		807										
	103		5TD	1100		334	344		274		000	734	0	1657		808 815										
			STO	1200		315	344		274			699		1729		824										
			STD	1300		296	345		275			664		1797		833										
			STO	1400		278	345		275			629		1862		843										
			510	1500		261	345		275	-	-	595		1923		852										
	189			T1525		257	345		276		000	- / /	-	. ,		855										
					Ü		747	0 /	2.0						14,	ررن										

0.	CODE	LATITUI		LON	GITUOE	50	ARSDEN	STATION TH	YEAR	2 1 -	ORIGIN			HT930	MAX. OEPTH	085	WAVE SERVATION	45	WEA-	CLOUD			ODC '
183			1/10	LOIN	1/10	5 2 10		MO DAY HE		L K		STATE IM UN		BOTTON	S'MPL"	1	HGT PEP		CODE	TYPE A MI	1		UMBER
0 2	WI	2832	N	140	005 W	0.6		06 20 2		7 N	07 00	16		4938	15	09	2 2		X1	6 2			0006
		2002		140	,,,,	, 00	WAI		INO		AIR TE			NO.	ľ		12121		~ 1	0.2	1	1	0000
									SPEED AM	ARO- ETER	ORY	w	FT CODE	085.	OBSERV	CIAL							
							CODE	IMI DIR.		nbs)	BULB	ΒŲ		DEPTHS	OUSERV	4110111							
								0.8	513 2	231	205	1	72 7	14	Ţ								
Г				-				1				1		1	·								
ľ	MESSENGE TIME	CAST NO.	CAR		DEPTH IN	1)	T *C	5	SIGMA-T		NOMALT-E		₹ ∆ o		DCITY	0 2 m1/1	PO4-1		0TA L = P g = 01/1	NO2=N ug - at/1	NO3-N µg - atri	\$1 O4-\$1	рН
	HR 1/10			`						_		_	x 10 <sup>3</sup>	-	-		+	-				-	_
										-													
				T D	0000		2134	3528	2463	C	003318	39	0000		260								
	20	-	089	-	0000		2134	35276	2463						260								
	20	8	089		0009		2106	35272	2470						254								
				TD.	0010		2105	3527	2470		03251		0033		254								
	2.0	0		TD	0020		2089	3525	2473	C	003228	3.1	0065		251								
	20	8	089	5 TD	0028		2070	35238 3523	2478 2479	,	003179	2 2	0097		248								
	20	0			0030		2001	35186	2419		103119	9 3	0091		231								
	20	8	089	5 T D	0050		1989	3518	2495		003035	5.1	0159		229								
	20.	c c	08:		0071		1920	35135	2509		0000	- 1	0100		212								
	20	0		T D	0075		1914	3513	2510		002894	. 4	0234		211								
	20	g	089		0096		1874	35086	2517		,020,4	• •	0-54		203								
				T D	0100		1867	3507	2518	(	002832	23	0305		201								
				TD	0125		1805	3495	2524		002779		0375		186								
	20	8	089		0146		1726	34822	2533	•					165								
				TD	0150		1701	3478	2536	(	002670	2.0	0443		158								
	20	8	08		T019		1435	34369	2564					19	078								
				Tΰ	0200	)	1422	3436	2567	(	002369	9 U	0570	1 9	074								
			S °	TD	0250	)	1217	3421	2596	(	002112	2.1	0682	15	011								
	20	8	083	5	0293	3	1072	34124	2616					14	967								
			S	TD	0300	)	1054	3412	2619	(	001898	3.2	0783	14	961								
	20	8	08	S	T038	7	0851	34046	2647					14	900								
			S.	TD	0400	)	0828	34∪5	2651	(	001609	57	0958	14	893								
			S	T D	0500		0671	3407	2674	(	001381	13	1107		849								
	20	8	08		0580		0576	34081	2688						824								
			S	TD	0600		0561	3411	2692		001215		1237		822								
				TD	0700		0495	3421	2708	(	001069	95	1351		813								
	20	8	08:		T076		0460	34276	2717						810								
				TΟ	0800		0449	3430	2720		000956		1453		812								
				TD	0900		0418	3437	2729	(	000876	68	1544		816								
	20	8	08		1095		0402	34402	2733						819								
				T O	1000		0389	3443	2737		00000	_	1628		821								
				TD	1100		0363	3447	2742		000754		1706		+828								
			-	TD	1200		0339	3451	2748		000703		1779		+835 +843								
				TD	1300		0318	3453 3454	2752 2754		000670 000648		1914		852								
	20		06	TD	1400 T1458		0291	34544	2755	(	000048	00	1714		858								

				,															
	HIP LAT	ITUDE L	ONGITUDE TO NOTE A PARTY OF THE	MARSDEN	STATION T		YEAR		VATOR		DEPTH	MAX. DEPTH		WAVE ERVATIONS	WEA	CLOUD			NODC
CODE NO. CC	DE .	1/10	1/10	10° 1°	MO DAY H		, Lea		STATIC		BOTTOM	OF S'MPL'		HGT PER 3	0001		1		STATION NUMBER
311083 W	1 300	)53N 1	40010W				967	NO7 00	7		4773	15	08	2 2	x2	6 8			0007
				WAT	TER V	VIND	BAPO	A IR TE	мр. ℃		NO.		CIAL	- 1 - 1	1 //2			1	0007
				COLOR	TRANS. DIR.	SPEED OR FORCE	METER (mbs)	DRY	BUT.		OBS. DEPTHS	OBSERV	ATIONS						
					09	509	240	188	15	3 7	14								
1	SENGE CAS		DEPTH (m)	1 °C	s *4.	SIGM	A-T	SPECIFIC VOLU	JME 10 <sup>2</sup>	₹ △ D DYN. M x 103	SOL	CITY	O <sub>2</sub> m1/I	PO4=P yg = 01/1	101AL=P μg = α1/I	NO2=N ug + at/l	NO3-N µg - at/1	\$1 O4-5	
															1				
		STD	0000	2080	3530	248	0	003158	15	0000	15	246		1	1	1	Į.	1	1
	171	OBS	0000	2080	35304	248	0					246							
		STD	0010	2079	3530	248	0	003161	0	0032		248							
	171	OBS	0010	2079	35302	248						248							
		STD	0020	2031	3524	248	8	003086	8	0063		236							
	171	OBS	0029	1993	35196	249	5					226							
		STD	0030	1991	3519	249	5	003025	8	0093		226							
	171	OBS	0048	1930	35108	250	5				15	211							
		STD	0050	1913	3508	250	7	002919	15	0153		206							
	171	OBS	0073	1776	34851	252	4					168							
		STD	0075	1775	3485	252	4	002765	6	0224	. 15	168							
	171	OBS	0097	1752	34842	252	9					165							
		STD	0100	1746	3484	253	0	002714	.5	0292		164							
		STD	0125	1680	3482	254	4	002588	6	0359	15	148							
	171	OBS	0147	1595	34795	256	2					125							
		STD	0150	1575	3475	256	3	002412	1	0421		119							
	171	OBS	0199	1298	34208	258	0					131							
		STD	0200	1294	3421	258		002247	5	0538		29							
		SID	0250	1130	3415	260	8	001997	2	0644	14	980							
	171	OBS	0296	1009	34100	262	5					944							
		STD	0300	1002	3410	262	7	001825	1	0739									
	171	085	T0396	0844	34046	264	8				148	398							
		SID	0400	0835	3405	264		001618	5	0912									
		STD	0500	0637	3402	267	6	001367	0	1061	148								
	171	OBS	0593	0508	34002	269	0				14	798							
		STD	0600	0504	3401	269		001218	3	1190									
		STD	0700	0448	3414	270		001064		1304									
	171	OBS	T0786	0410	34232	271						792							
		STD	0800	0406	3425	272		000942	7	1405		793							
		STD	0900	0380	3434	273		000854		1494		300							
	171	OBS	T0975	0362	34395	273		-30074	•	, .		305							
	-	STD	1000	0356	3441	273		000782	4	1576									
		STD	1100	0334	3447	274		000720		1651	148								
		STD	1200	0314	3452	275		000666		1721	148								
		STD	1300	0295	3454	275		000636		1786	148								
		STD	1400	0279	3455	275		000616		1849									
	171	OBS	T1480	0267	34553	275		00010			148								
		-00		9201	2-222	21)	U				146	25							

REFERENCE	Cuin			at the	MARSDEN	STATION TI		ORIGINA	TOR'S	DEPTH	MAX. DEPTH	000	WAVE	WEA-	CLOUD			NODC
RY ID. DE NO.	CODE	LATITUDE 1/1		GITUDE S	SQUARE	MO DAY H	R.1/10		TATION UMBER	TO BOTTOM	OF S'MPL'S	Die	ERVATIONS HGT PER SEA	CODE	CODES	1		TATION
11083	WI	29563N		9532W	086 99	06 22 1		NO7 008	3	4663	14	08	2 2	XВ	8 8			0008
*			,		WA	TER V	VIND BAR	O- AIR TEN	AP. °C VIS.	NO.	SPEC	IAL						
					COLOR	TRANS DIR.	SPEED MET OR (mb		WET COO	DEPTHS	OBSÉRVA	TIONS						
						10	511 24	7 186	173 7	14								,
	MESSENGE TIME HR 1/10	CAST O	ARD TYPE	DEPTH (m)	т *с	s */	SIG M A -T	SPECIFIC VOLUS	WE ₹ △ D DYN. A X 10 <sup>3</sup>	vero		O 2 m 1 l	PO4=P	TOTAL-P	NO2-N ug = al-1	NO3-N 99 - of 1	\$1 O4-51 yg = al. 1	рм
			STD	0000	2079	3529	2479	003169	7 0000	1 15	246							
	19	3 (	B5	0000	2079	35285	2479	000109	, 0000		246							
	19		BS	0009	2071	35287	2461				245							
	- /	_	STD	0010	2068	3528	2481	003148	7 003		245							
			510	0020	2039	3525	2487	003099			238							
	19	3 C	BS	0027	2014	35231	2492			15.	232							
			STD	0030	2000	3522	2495	003026	6 009	3 15.	229							
	19	3 0	BS	0044	1941	35183	2507			15.	214							
			STO	0050	1921	3516	2511	002881	1 015		209							
	19	3 (	BS	0067	1865	35086	2519				196							
			STO	0075	1839	3504	2522	002778	5 022		189							
	19	3 (	B\$	0089	1792	34974	2529				177							
			STO	0100	1752	3497	2538	002633		-	167							
			STO	0125	1660	3489	2554	002489	8 035	5 15	143							
	19	3 (	185	0135		34840												
			STD	0150	1565	3468	2560	002441	4 041		115							
	19	3 0	BS.	0182	1442	34404	2566		. 050		078							
			STD	0200	1355	3434	2579	002269			051							
	1.0		STO	0250	1151	3419	2607	002006	1 054		988							
	19	3 (	BS STD	0271 0300	1082 1020	34146 3411	261 <b>6</b> 2624	001847	8 073		967 949							
								001047	0 013	-	912							
	19	ا و	BS STD	T0361 0400	0895 0807	34059 3404	2641 2653	001578	5 090		885							
				0500	0623	3400	2675	001366			829							
	10	, ,	STO	0542	0563	33979	2681	001300	0 105		811							
	19	, (	BS STD	0600	0506	3403	2692	001205	9 118		798							
			STD	0700	0434	3413	2708	001205			786							
	19	3 (	)BS	T0718	0424	34145	2710	301033			785							
	19	_	STD	0800	0405	3424	2720	000948	9 139		792							
	19	1 (	BS	T0891	0384	34327		300.40		-	800							
	. ,	_	STD	0900	0382	3433	2729	000863	9 148		801							
			STD	1000	0360	3441	2738	000787			809							
			STD	1100	0339	3447	2745	000725			818							
			STO	1200	0320	3451	2750	000681			827							
								_										
			STD	1300	0301	3453	2753	000650	9 178	4 14	836							

EFERENCE	SHIP	LATITU	DE	LON	GITUDE	DRIFT	MAP	DEN ARE	STATI	ON TI		YEAR			ATOR'S		DEPTH	UCF	PTH.	OBSE	WAVE RVATIO	วหร	WEA-	CLOUL		NODC
RY ID.	CODE		1, 10		1/10	0 2	10*	- 1	MOID				CRUH!		STATION NUMBER		80110	W 2.'Y	PL'S		H GT PER		) cont	TYPE AA		NUMBER
31108	3 W I	3006	7N	139	9596W		122			3 1		1967	NO	7 00			464	5 1	16	08	2 2		x 2	6 8		000
								COLOR	1		SPEED	METI		AIR TE	MP. C	VI5.	NO. OBS.	Conti	SPECIA ERVATI							
								CODE	(m)	DIR.	FORCE	(mbs	1)	BULB	BULB		DEPTH	5 0000	ERVAII	UNS						
									4	05	510	26	1	194	151		14				,				,	 
	MESSENC TIME HP 1, 1		C A R TYP		DEPTH I	m )	T	°C	5	•/	SIGN	1 – A /	SPECII	FIC VOLL	IME 2	△ D YN, M X 10 <sup>3</sup>	. VEI	LOCITY	0:	g m1/1	PO4-		TOTAL-F	NO2-N ug - at/1	NO3-N ug - at/1	
																	1									
		_	S1		000			078	35		248		00	3151	9 0	000		5246								
	1 9	0	OBS		000			078	353		248					_		5246								
		_	S1		001			072	353		241		00	3139	94 0	031		5246								
	16	10	0B3	-	001		_	072	353		241							5246								
			ST		002			036	352		24		-	3070		063		5238								
	, .		S1		003			994	352		249		00	3004	3 0	Ú93		5227								
	1 9	, 0	089		003			970	351		250		0.0	7 16 0		163		5221								
	1.0		S1		005			884	350		25		Qυ	2863	16 L	152		5198								
	19	/ ()	OBS		005			864	350		25		20	2700				5193								
	19	0	S1 OB3		007			775 755	348		25		00	2758	13 (	222		5168								
	1.7	, 0	-		010			757	349		25		0.0	3466		- 0 0		5164								
	19		S1 083		010			758	349		25		00	2660	19 (	290		5168								
	13	, ,	S1		012			708	348		25: 25:		0.0	3600		167		5170								
			5 I		015			618	346					2649		356		5156								
	1.0		083		016						25		00	2578	19 (	422		5131								
	19	, 0						565	345		25		0.3	2222				5116								
	1.0		S1		020			376	343	_	25		UU	2332	7 (	545		5058								
	19	, 0	0B3		T021			293 198	342		251		0.0	2004	2 0			5032								
			S1 S1		030			058	342		25			2084		754		5005								
	19				032			995	34]		26		00	1875	, ,	154		4963								
	15	, 0	089		040			835	340		26:		0.0	1635		929		4944								
	19	10	51 0B5		1043			770	340		26		UU	1622	2 (	727		4896 4876								
	1.7	, ,	S1		050			649	340		26		0.0	1389		079		4840								
			S1		060			509	340		26			1194		208		4840 4800								
	19	20	083		064			463	340		270		00	1174	.0 1	200		4789								
	1 .	, ,	S1		070			443	341		270		0.0	1058	6 1	321		4790								
			S		080			410	342		272			0947		421		4795								
	19	0.0	083		1085			393	343		27		00	J 7 4 1	, ,	1		4798								
	1.		51		090			382	343		27		D.O.	0856	.5 1	511		4190 4801								
			51		100			357	344		27			0783		593		4808	_							
	15	0	089		T106			341	344		27		00	0103		- , ,		4813								
	¥ 3	~	51		110			334	344		27		0.0	0731	g 1	669		4815								
			S1		120			312	344		27			0699		741		4823								
			S1		130			293	345		27			0662	-	808		4832								
				TD	140			275	349		27			0629		873		4841								
			51		150			259	349		27			0598		934		4852								
	19	0	OB:		T161			243	345		276		0.0	(		,,,,,,,		4865								

NCE ID.	SHIP	LATITUD	E	LON	GITUDE 2	MAR		STATION		YEAR	ORIGIN-	ATOR'S	_	DEPTH	DEPTH		WAVE SSERVATIONS		R CC	DUD		5	NODC TATION
NO.	10.				1.10		17-1	MO DAY	HR,1/10			UMBER		MOTTOR	S'MPL	S DIR.	HGT PEP 5	EA COI	DE TYPE	A M T		١.	UMBER
083				139	9598W	122	09	06 24	185	1967	NO7 01	n		4773	13	0.7	13 2	х	1 6	7			0010
	MESSENGE CAST CA						WAT		WIND		AIR TEA		7	NO.			7	1		, ,			0010
							COLOR	TRANS. DIR	SPEE	BAR	ER DRY	WET	CODE	OBS. DEPTHS		ECIAL VATIONS							
							CODE	(m)	FORC	(mb	s) BULB	BULB	<u> </u>	DEPTHS									
								0 9	51:	3 29	9 192	154	7	14									
[			CAR	n				1			SPECIFIC VOLU	MF ≥	A D.	501	UND		, PO4-P	TOTAL-	-F NO2	N	NO3-N	5104-51	
			TYP		DEPTH (m)	1	*C	5 *	SIG	MA-T	ANON ALY-XI	יס יי	IN. M	VELO	CITY	O <sub>2</sub> ml	yg - at I	µg • a1			μg = σ1/1	μg = αΙ/Ί	pН
}				-		+		-	-				-	-			+	-		-			+
- 1			c 1	r D	0000	1 2	028	3514	1		003145	2 0	000	16	221					1			
	189	5	089		0000		028	35139		+81 +81	003145	2 0	000		231								
	189		083	-	0009		021	35141	_	+83					230								
	10.		51		0010		020	3515	_	484	003124	2 n	031		230								
			51		0020		005	3518		491	003062	_	062		228								
	189	5	089		0027		989	35209		497	000002	- 0	- 02		225								
			ST		0030		980	3518	_	497	003005	5 N	093		223								
	185	5	089		0044		932	35099		503	003003	_	- / -		211								
	10.	,	51		0050		906	3509		509	002895	2 0	152		204								
	189	5	085		0066		845	3505		522	002073		- ) [		189								
			5		0075		818	3502		526	002743	1 0	222		183								
	189	5	083		0088		778	34960		531	0025				172								
			51	-	0100		748	3490		534	002674	8 0	290		165								
			5.	<b>r</b> D	0125	1	662	3475	2	543	002596	1 0	356	15	141								
	189	5	085	5	0131	1	636	3471	2 !	546				15	134								
			S1	۲D	0150	1	520	3451	2	557	002469	0 0	<b>4</b> 19	15	099								
	189	5	083	5	0178	1	372	34293	3 2	572				15	053								
			S1	ΙD	0200	1	293	3426	2 !	585	002206	7 0	536	15	030								
			SI	D	0250	1	135	3419	26	510	001977	4 0	041	14	983								
	185	5	OBS	5	0263	1	099	3417	7 26	16				14	972								
			\$1	rD	0300	1	017	3412	20	526	001835	4 0	736	14	948								
	189	5	083		10348		918	3406	7 20	38				14	919								
			51		0400		822	3405	26	551	001598	8 0	908	14	891								
			S1	-	0500		662	3400		571	001417	0 1	058		844								
	185	5	OBS		0521		633	33992	_	574					836								
			S1		0600		531	3403		589	001236	8 1	191		809								
	189	5	OBS	-	T0691		448	3409		704		_			790								
			SI		0700		445	3411		705	001083		307		791								
		_	SI		0800		412	3423		718	000964	5 1	409		795								
	189	5	OBS		10865		393	34298		726					799								
			S.		0900		383	3432		728	000876		501		801								
			SI		1000		357	3436		734	000819		286		807								
			Si		1100		334	3441		740	000765		665		815								
			51		1200		314	3446		746	000714		739		823								
			5		1300		298	3450		751	000667	3 1	R 0 8		834								
	189	5	OBS	5	T1348	0	291	34526	2	754				14	839								

REFERENCE	SHIP			- 4	MARSDE	4 5	TATION	TIME			ORIGIN.			DEPTH	MAX.	0.	WAVE SERVATION	WEA				NODC
ODE NO.	CODE	LATITU	DE 1/10	1/10	SQUARE	• MC		HR.1/10	YE AF	C		TATION IUMBER		10 80110M	S'MPL"	0	HGT PEP	COD		ī		TATION NUMBER
31108	3 W I	3000	3N	140005W	123 0	0 00	25	186	196	7	NO7 01	1		4352	16	11	3 2	X1	6 5	Ì		0011
					-	WATER		WIND		APO-	AIR TEA		vis	NO. 085.		CIAL						
							MIS DIR	SPEEC OR FORG	1 177	ETER mbs1	BULB	WET	COD	DEPTHS	OBSERV	A BONS						
							09	+		268	184	141	7 7	14								
	MESSEN						_					:	E A D	(0)			100.0	T			F1 0 6	
	TIME	of NO.	CARD	DEPTH (m)	1 "0		5	SIG	M A -1	Ι,	PECIFIC VOLU ANOMALY—X1	0,71	E △ D YN, M x 10 <sup>3</sup>	. VELO	DCITY	02 ml/	PO4-P	101AL-F		NO3-N pg - at/l	51 O₄=\$ µg = al/	
	HR 1/1	0						+				+	× 10				+	· <del> </del> -				+
			 ST	D 0000	202	0	3523	24	490	1	003061	2 (	0000	1 15	229		I	1	1	l	Į.	1
	18	16	085		202		35227		÷90		003001	۷ (	,000		229							
	18		085		201		35229		493						228							
		-	51		201		3523		493		003041	4 (	0031		229							
			ST		200		3522		493		003041		0061		229							
			51	D 0030	198	6	3520	24	497		003004		0091		225							
	18	36	OBS	0033	197	7	35198	3 24	499					15	223							
			51		189	9	3512	2 5	513		002856	4 (	150	15	203							
	18	36	OBS	0052	189	0	35106	25	515					15	200							
			ST	D 0075	180	13	3500	25	528		002722	2 (	220	15	178							
	18	36	085	0080	178	7	34974	25	530					15	174							
			5 <b>T</b>		173	7	3489	2 5	536		002656	7 (	287	7 15	162							
	18	36	085	0103	172	7	34868	3 2	537					15	159							
			5 T	D 0125	160	1	3464	2 !	549		002541	2 (	352		121							
			51	0 0150	146	8	3443	2 5	562		002418	5 (	)414		081							
	18	36	085		144		34397		565						074							
			ST		123		3418		590		002157	3 (	)528		009							
	18	36	OBS		12		34165		594						002							
			51		11		3415		510		001974		0631		976							
			ST		10		3413		528		001816	3 (	$072\epsilon$		945							
	18	36	085		099		34123		529			_			942							
			51		079		3403		554		001571	0 (	3896		881							
	18	36	085		078		34024		556						876							
			51		06.		3403		678		001338		1041		828							
	•		51		049		3404		594		001184	ľ	1167		794							
	18	36	085		041		34040		696		001053	0			790							
			51		04:		3414	_	708		001053		1279		789							
	2.6		S1		040		3424 3424		720 723		000943	1	1379		790							
	14	36	0B5		039		34260 3433		730		000855	В	1469		791							
			51		03		3441		739		000778		1551		806							
	1.6	36	089		034		34436		741		000110	,	) ;		809							
	10	,,	51		03		3445	-	744		000731	4	1626		815							
			51		03		3448		748		000697		1698		824							
			51		029		3450		752		000663		1766		833							
			51		02		3453		755		000631		1830		843							
			51		02		3455		759		000599		1892		853							

ENCE	SHIP	1 4 7/2-		100	541151	MAR:	SDEN	1 MOITAT2	IME	AR	ORIGIN	_		DEPTH	MAX. DEPTH	08	WAVE SERVATIO	NS	WEA-	CLOUD			NODC TATION
10. CODE NO. WI		LATITE	1/10	LON	GITUDE 5	100		MO DAY		AX		NUN	ABER ABER	801108	S'MPL"		HGT PER		CODE	TYPL AM			UMBER
1083	WI	3000	2N	14	W0000	123	00	06 26	185 19	67	NO7 01	2		4480	16	06	2 2		X1	8 2			0012
							WA	TER V	VIND	BARC	AIR TE	ΜP.	°C VIC	NO.	SPE	CIAL							
							COLOR	TRANS. DIR.		METE (mbs			VET CODE	OBS. DEPTHS		'A TIONS							
							CODI	07	S16		_	-		3.4	-		1						
			,			- 1		107	310	26	4 191	1		14	L.,		1,				_	_	_
	MESSENGR TIME		CAR		DEPTH Imi	т.	*c	s ·	SIGMA	_T	SPECIFIC VOLU	M.E	₹ △ D DYN, M	20	UND	0 2 ml/	PO4-		OTA L+P	NO2-4	NO3-N		рН
	HR 1/10		TYP	,							ANOMACIE		x 10 <sup>3</sup>	VEL	OCITY		µg - a	71	vg - at 1	µg = at l	yg - at/l	yg - at."	
			S	TD	0000	2	013	3510	2484	_ '	003134	- 1	0000	1.5	226								
	18	5	08	S	0000	2	013	35102	2482	2					226								
				ΤD	0010		998	3511	2487		003096	4	0031		224								
	18	5	OB:		0010		998	35107	248						224								
				TD	0020		987	3514	2497		003052		0062		223								
				TD	0030		976	3516	249		003008	1	0092		222								
	18	5	OB.		0035	_	971	35178	2499						221								
				TD	0050		874	3508	251		002824	9	0151		195								
	18	5	OB.		0055		850	35049	2520		00 700		0.100		189								
		_		TD	0075		813	3501	2527		002738	5	0220		181								
	18	5	OB.	-	0035		784	34962	2530		000/55	-	0.100		174								
	18	6	0 B	TD	0100		727 687	3486 34789	2536 2540		002655	00	0288		158								
	10	5		э ТО	0125		580	3461	2550		002517	17.	0352		115								
				TD	0150		433	3439	256		002375		0413		069								
	18	5	0В.		0164		361	34296	2574		002515	'	0 .1.		047								
		-		ΤD	0200		218	3420	2595		002109	2	0525		004								
	18	5	OB:	S	0219	1	153	34160	2604	4				14	984								
			S	T D	0250	1	079	3413	2616		001923	1	0626	14	962								
			5	TD	0300	0	968	3409	263	2	001776	4	0719	14	930								
	18	5	QВ	S	0328	C	911	34068	2639	9				14	913								
				TD	0400	0	781	3402	265		001556	3	0885	14	875								
	18	5	08	S	T0438	0	720	34008	2663	3				14	857								
			S	TD	0500	C	630	3402	2676	6	001357	6	1031	14	832								
			S	TD	0600	0	514	3405	2691	3	001203	39	1159	14	802								
	18	5	ОВ	S	0653	0	468	34059	2699	9				14	792								
			S	TΟ	0700	0	447	3412	2706	5	001078	3.2	1473		792								
			S	ΤD	0080		407	3424	2720		000951	2	1375		793								
	18	5	08		T0864		386	34308	272						796								
				ΤD	0900		377	3434	273		000850		1465		799								
				TD	1000		353	3441	2739		000778	9	1546		806								
	18	5	ОВ		T1078		336	34458	2744		00070	_			812								
				TD	1100		331	3446	274		000721		1621		814								
			_	TD	1200		311	3448	2749		000689		1692		823								
				TD	1300		292	3451	275		000658		1759		+831								
				TD	1400		276	3453	275		000630		1824		842								
	, .			TD	1500		260	3455	275		000600	) 4	1889		+852								
	18	5	OB	5	T1640	C	1242	34579	276.	۷.				1 4	868								

necessia.						1				0.010		011		MAX.				7	Ţ		
CTRY ID.	SHIP	LATITU	DE L	ONGITUDE	MARSDEN SOUARE	STAT	ION TI		YEAR	ORIGI CRUISE	STATI		DEPTH	DEPTH	OBSE	WAVE ERVATIONS	WEA-	CLOUD		2	NODC TATION
CODE NO.	CODE	•	1/10	1/10	10. 1.	MOID	AY H	P.1/10		NO.	NUM		BOTTOM	OF S'MPL'S	Dia	HGT PER SEA	CODE	TYPE A M	-	N	UMBER
31108	3 W I	2959	2N 1	39592W	086 99	06	7 1	82 1	967	N07 0	13		4389	15	06	2 3	X1	6 2			0013
					W	ATER	W	IND	BARO	A IR T	MP.	°C VIS	NO.	SPEC	~LA1						
					COL		DIR.	SPEED	M ETEI	DRY	BU	ET COD	OBS.	OBSERV	ATIONS						
					COL	+	0.7	S14	+		+-		7.								
		-		. ,		4	07	314	26	7 190	1.	78 7	14	L							
	MESSENG		CARD	DEPTH Imi	1 °c	s	٠,	SIGM	A =1	SPECIFIC VOL		₹ △ D	sou	UND	O2 ml/1	PO4-P	TOTAL-P	NO2-N	NO3-N	SI O4-SI	рн
	HR 1/1		TYPE							ANOMALY-	Liur	x 10 <sup>3</sup>	. AETO	OCITY		µg = 01/1	μ <b>g -</b> α1/(	µg = a1/	µg - at/∮	µg = qU1	
	1		STD	0000	2001	34	97	247	76	00319	75	0000	15	221							
	18	2	085	0000	2001	349	973	247	76				15	221							
			STD		1994		97	247	77	00318	49	0032	2 15	221							
	18	2	085	0010	1994		971	247	77				15	221							
			STD		1999			248		00316		0064		223							
			STD		1999			248		00314	95	0099		225							
	18	2	085	0030	1999		333	248		0036				225							
			STO		1794			253		0026ь	88	015		172							
	18	2	085	0050	1794		33	253		00350		0.714		172							
		-	STE		1742	_		254		00259	98	021		160							
	18		OBS	0075	1742		773	254						160							
	18	2	085	0099	1742		987	254		00260		0.10		164							
			STO		1738			254		00259		0584		163							
			STD		1639 1534			25t		00242		034		136							
	18		STD OBS	0151	1530		341	258		00225	24	040		107							
	10	12	510		1306	_		258		00221	7 2	051		034							
	18	2	OBS	0203	1294		253	258		00221	12	031		031							
		_	510		114			260		00198	6.0	062		988							
			STD		100			263		00179		071		945							
	18	12	085	0302	100		147	263						943							
			STD	0400	077	34	12	269		00154	17	0084	14	871							
	18	2	OBS	T0401	0770	34	J 2 1	269	57				14	871							
			STD		0609			268	3 0	00132	0.2	102	7 14	822							
			STD		048			269	95	00117	77	1157	2 14	791							
	18	12	085	0605	048		37	269						789							
			STC		043	-		27(		00104		126		788							
			STD		0399			272		00093	45	136		790							
	18	2	oBs	T0810	0396		260	272						790							
			STD		0376			273		00084		145		798							
			STC		0355			273		00078	12	1532		807							
	18	2	085	T1014	0352		420	274		00073		160		808							
			STD		0319			274		00072		1608		816							
			STE		029			275		00067		174.		834							
			STO		027			279		00060		1809		843							
			STE		0262			275		00059		1869		853							
	18	. 2	085	71514	026		564	275		00009	12	106		854							
	10		003	11714	0201	, ,4	J () <del>-</del>	215	, ,				14	0 94							

REFERENCE	SHIP	LATITUDE		NGITUDE S	NAU SQI	SDEN JARE	517	TION (GM1	1	YEAR		CPUISE		TION	$\dashv$	DEPTH TO BOTTOM	DEPT OF	н	OBS	W A V E ERVAT	ONS	WI TH CO	ER	CLOUD			NODC STATION NUMBER
311083		29596	10	1 10 40022W	08	7 90	06	28	HR,1/10	196	7	NO.	014	MBER	$\rightarrow$	4297	S'MPL	_+_		HGT PE	$\neg$	A	-	TYPE AM			
7 31 1003	1 14 7 1	273701	1 1 -	+0022W	00		TER	20	WIND	190	-1		R TEMP.	**		_	0 2	۷ [	07	3 4		^	1	8 7	}		0014
						_	_	-	SPEC		ETER	٠ 🗕			VIS	NO. OBS.		ECIAL									
						COLO			FOR	1 1	nbs)			ULB	0006	DEPTHS	OBSER	VATIO	ONS								
							+	06	+	_	57	7 19	18	180	7	0.6											
							+		1	-   -	Т					<del>, </del>		-		T			-				1 1
	MESSENGE	CAST NO.	CARD	DEPTH (m	1	T *C		s • (,	SIG	MA-T		SPECIFIC ANOMA			I, M		JND	0 2	m1/1	PO		TOTAL ug - of		NO2=N   µg = at	NO3-V		p.H.
	HR 1/10		11776								1			У	103	4110	J C 11 1			h8 -	01.1	ng - 0		µg = ar :	µд = at	l µg - 01	1
			STD	0000		2014		506		79		0031	1700	00	00	15	226										
	18	2	OBS	0000		2014		5056	5 24	+79							226										
			STD	0010		2010		506		+80		0031	635	00	32	15	226										
	18	2	385	0010		2010	_	5056	5 24	<b>48</b> 0						15	226										
			STD	0020		2002		511		+86		0031	_	00	63	15	226										
			STD	0030		1993	3	516	24	492		0030	1540	0.0	94	15	226										
	18.	2	DBS	0034		1990		5180		494							226										
			STD	0050		1876		506		15		0028	3442	0.1	53	15	196										
	18	2	DBS	0054		1852		502		518							189										
			SID	0075		1761	3	485	2 5	527		0027	7331	0.2	23	15	164										
	18	2	085	0083		1735		4796		529						15	157										
			STD	0100		1705	3.	474	2 5	532		0026	926	02	90	15	150										
	18	2	085	0108		1684	3	4708	3 25	35						15	145										
			SID	0125		1595	3	458	2 !	545		0025	718	03	56	15	119										
			SID	0150		1470	3	441	2 5	560		0024	372	04	19	15	082										
	18	2	085	0162		1413	3.	4350	2 :	568						15	064										
			STD	0200		1244	3	420	2 5	590		0021	577	0.5	34		012										
	18	2	085	10216		1178	3	416	7 26	500							992										

FERENCE	SHIP				- E	MARS	DEN	STATION TI	ME		ORIG	OTAM	R'S	T	DEFIN L DE	AX. PTH		WAVE		WEA-	crond			NODC
I ID.	COOE	LATITU	DE L	. 1/10	INDCT	SQUA		IGMTI	2.1/10	YEAR	CRUISE NO.	STATI		١,	10 0	)F		RVATION		THER	CODES	)		HOITAT.
	2 m T	2050		40006W	-	10*		MO DAY H		1067	1			+	13.00				>t A			1		
1 1083	N I	2958	/N   1	40006W	1 1	087	90 WAI	06 29 1	IND	1967	A ID	15 EMP.	~	- 1		5	07	4 4	- 1	x 2	8 8	1		0015
						h	COLOR		SPEED	BARC METE	)• <del>                                    </del>	w	_ \	IS DDE	O65. L age	SPECIA!								
							CODE	Im) DIR.	OR FORCE	lmbs	) BULB	BU			DEPTHS OBS									
								07	S15	22	1   191	1	82 -	1	14									
	MESSENG	RCAST	CARD								SPECIFIC VO	UME	ξ Δ	D	SOUND			PO 4-P	10	\$AL-9	NO2-N	NO3-N	\$104-5	
	HR 1/1	º NO.	TYPE	DEPTH	(m)	,	*c	s */	\$10.9	MA-1	ANOMALT-	x10°	DYN.	M.	VELOCITY	02	mI/I	µg = 01.		g - e1/1	νg - σι i	µg - al i	µg + al '	pH
	714 771				-			<del> </del>	†														1	1
		, ,	STO	000	0	2 (	017	3510	24	82	00314	28	000	0.0	1522	7		1					1	
	18	10	OBS	000			017	35104	24				•••		1522									
			STO				013	3510	24		00313	91	003	3 1	1522									
	18	0	OBS	001		2 (	013	35100	24					-	1522									
			STO	002	Ū	20	013	3515	24	86	00310	65	000	3	1523	)								
			STO				013	3518	24	89	00308	54	000	4	1523	2								
	18	10	OBS	003			013	35184	24						1523									
			STO				984	3520	24		00301	17	019	55	1522									
	18	10	085	005			984	35195	24						1522									
	18		STO	007 00 <b>7</b>			836 836	3503 35028	25		00278	00	022	2.7	1518									
	10		OBS STD				830 749	3490	25 25		00267	ε.	029		1518 1516									
	18		085	010			749	34902	25		00207	90	02	,,	1516									
	10		STO			_	598	3463	25		00254	2.0	036	٠,	1512									
			STO				463	3443	25		00240		042		1508									
	18	0	085	015			458	34418	25			•		_	1507									
			STO	020	0	1.	244	3419	2.5	90	00216	50	053	37	1501.	2								
	18	10	OBS	T020		1.	222	34173	25	92					1500	5								
			STO				107	3415	26		00195		064		1497									
			STO				989	3412	26		00178	88	073	3	1493									
	18	0	QBS	030			980	34113	26		0015		000		1493									
	1.0		STO				791	3403	26		00156	66	090	) [	1487									
	18		085	040		U	786	34023	26						1487 1482									
			CTC	050		0.	613	34:13		7 Q		00	104											
			STO		0		613 488	3403 3404		79	00132		104											
	18	10	STO	060	0	0	488	3404	26	95	00132		111		1479	l								
	18	10	_	060 060	0 0 7	0.			26 26	95		89	11	7 1		l Ə								
	18	10	STC OBS	060 060 070	0 0 7 0	0.	488 481	3404 34038	26 26 27	95 96 09	00117	89 53		71	1479 1478	l 7 8								
	18 18		STC OBS STC	060 060 070	0 0 7 0	0.0	488 481 438	3404 34038 3415	26 26 27 27	95 96	00117	89 53	117	71	1479 1478 1478	1 3 8 9								
			STO OBS STO	060 060 070 080 1080	0 7 0 0 0	0:	488 481 438 397	3404 34038 3415 3425	26 26 27 27	95 96 09 22	00117	89 53 22	117	71 33 31	1479 1478 1478 1478	1 9 8 9								
			STO OBS STO STO OBS	060 060 070 080 1080	0 7 0 0 4	0:	488 481 438 397 396	3404 34038 3415 3425 34256	26 26 27 27	95 96 09 22 22 32	00117 00104 00093	89 53 22 57	111 128 138	71 33 31 70	1479 1478 1478 1478 1478	1 9 8 9 9								
		10	\$10 085 \$10 985 \$10 085 \$10 085	060 060 070 080 1080 090 100 T100	0 7 0 0 4 0	0:	488 481 438 397 396 364 336 336	3404 34038 3415 3425 34256 3434 3441 34411	26 26 27 27 27 27 27 27	95 96 09 22 22 32 40	00117 00104 00093 00083 00075	69 53 22 57 87	113 128 138 143 155	71 33 31 70	1479 1478 1478 1478 1478 1479 1479	1 9 8 9 9 3 9								
	18	10	\$10 085 \$10 085 \$10 085 \$10 085	060 060 070 080 1080 090 100 7100	0 7 0 0 4 0 0	0:	488 481 438 397 396 364 336 336 312	3404 34038 3415 3425 34256 3434 3441 34411 3447	26 26 27 27 27 27 27 27 27	95 96 09 22 22 32 40 40 47	00117 00104 00093 00083 00075	53 22 57 87	113 128 138 141 155	71 33 31 70 50	1479 1478 1478 1478 1478 1479 1479 1479	1 9 9 9 9 3 9								
	18	10	ST0 OBS ST0 OBS ST0 OBS ST0 OBS	060 060 070 080 7080 090 100 7100 110	0 7 0 0 4 0 0 0	0:	488 481 438 397 396 364 336 336 312	3404 34038 3415 3425 34256 3434 3441 3441 3447 3451	26 26 27 27 27 27 27 27 27 27	95 96 09 22 22 32 40 47 52	00117 00104 00093 00083 00075	89 53 22 57 87 48 90	113 128 138 143 153 163 163	71 33 31 70 50	1479 1478 1478 1478 1478 1479 1479 1480 1481	1 8 9 9 9 3 9 9								
	18	10	STC OBS STC OBS STC OBS STC STC	060 060 070 080 7080 090 100 7100 110 120	0 7 0 0 4 0 0 0 0	0:	488 481 438 397 396 364 336 336 336 292 277	3404 34038 3415 3425 34256 3434 3441 3441 3447 3451 3454	26 26 27 27 27 27 27 27 27 27 27	95 96 09 22 22 32 40 47 52 56	00117 00104 00093 00083 00075 00064 00064	89 53 22 57 87 48 90 59	117 128 138 147 159 168 168 179	71 33 31 70 50 22 39	1479 1478 1478 1478 1478 1479 1479 1480 1481 1482	1 8 9 9 9 9 5								
	18	10	ST0 OBS ST0 OBS ST0 OBS ST0 OBS	060 060 070 080 7080 090 100 7100 7100 120 130	0 7 0 0 4 0 0 0 0 0	0:00:00:00:00:00:00:00:00:00:00:00:00:0	488 481 438 397 396 364 336 336 312	3404 34038 3415 3425 34256 3434 3441 3441 3447 3451	26 26 27 27 27 27 27 27 27 27 27	95 96 09 22 22 32 40 47 52	00117 00104 00093 00083 00075	89 53 22 57 87 48 90 59	113 128 138 143 153 163 163	71 33 31 70 50 22 39 53	1479 1478 1478 1478 1478 1479 1479 1480 1481	1 9 9 9 9 9 9 5 5								

CT#Y CODE	ID.	SHIP	LATITUDE		DAIRT INDC 19	M ARS		STA	IGM!		YEAR	CRUISE NO.	STATION NUMBER	DEPTH TO BOTTOM	MAX DEPTH OF S'MPI'S	O S	SERV	A TIO	 WEA- THER CODE	co	OUD	NODC STATION NUMBER
31	1083	WI	29561N	139554W		086	99	06	30	198	1967	NO 7	016	4435	15	0.8	2	4	X 1	6	7	0016

WATER WIND BAROCOLOR IRANS DIR. OF METER DRY WET CODE
CODE In) FORCE (MD) BULB BULB DETAIL OBSERVATIONS

				04	503 1	90 199 1	78 7	14								
MESSENGE CAST	CARD TYPE	DEPTH (m)	T °C	s -/.	SIGMA-T	SPECIFIC VOLUME	₹ ∆ D DYN. M. x 10 <sup>3</sup>	SDUND	D2 ml/	PO4-P	TOTA (=P pg - 01/I	NO2-N µg - al/l	NO3-N vg - al/l	\$1.04-St µg + at/1	рН	SCC
	5.10	0000	3014	3483	2452	0.133309	1000	15023								
194	OHS	5000	2014	34434	246.			15223								
	STO	0010	1095	3485	2468	57.32707	3033	15220								
198	063	0010	1995	34856	2468			15220								
	SID	0020	2004	35.19	2484	0031273	00165	15227								
	STU	0030	2013	3521	2491	0030673	0036	15232								
148	085	0030	2013	452119	2441			15232								
	SID	0(5)	1904	3510	2504	0028953	0156	15205								
1.24	084	กดรม	1904	35100	2509			15205								
-	STÜ	1075	1821	3501	2524	0027597	0426	15183								
194	085	0.075	1821	35007	2524			15183								
	STO	0100	1763	3493	2533	0026863	0294	15170								
1 24	005	6100	1763	3493.	2533			15170								
	510	0125	1585	345_	2551	0025207	J3F0	15110								
	STO	0150	1430	3439	2566	0023764	U421	15 58								
1 2 5	DHS	2152		34361												
	SID	1200	1191	34.8	2501	0021476	0534	14993								
104	OBS	T020h	1168	34058	2594			14985								
	STD	0.250	1104	34 19	2610	0019739	0637	14957								
	STD	0300	1000	3413	263	0017967	073.	14942								
1144	OHE	0305	0391	34138	2630			14939								
	STC	3400	578k	34.2	2654	2015666	1894	1 + 8 7 7								
102	280	0405	-778	34/18	2656			14874								
-	170	าลิกอ	0513	3403	2679	0013292	1044	14565								
	570	neu.	0.489	3415	26.95	0011742	1164	14792								
1.78	JA5	0610	0474	34,46	2607			14789								
	STD	0700	0434	341n	2710	0010332	1.80	14787								
	STD	2800	0395	342+	2723	0009226	1377	14785								
198	085	T0816	J390	34276	2724			14789								
	ETD	0909	0.3.74	3435	273	3008398	1+-5	14797								
	STÜ	1201	356	3442	2731	0037751	1546	14807								
1 4 -	035	T1316	+ 353	34475	274			14809								
	STC	1100	r = 3 ?	3446	2744	0007367	1622	14816								
	STO	1200	1319	3448	2747	0007029	1694	14825								
	3.1	1300	1300	3451	274.	3036574	1752	14835								
	510	1400	0281	3453	2755	0006316	1827	14844								
	STD	1500	0252	345h	3769	0005454	1889	14853								
1 48	0.65	1526	0257	34708	1760			14856								

SHIP		1 10	ONGITUDE ALDER	AFARSDEN SQUARE	STATION IGM MO DAY	TI YEAR	C x 0125 27 W	OR'S TION MBER	DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL"	08	WAVE ISERVATIONS	WEA- THEP CODE	CODES		2	NODG TATION (U 1/2 BEP	
WI	29541	BN   1	39594W	086 99	07 01	190 196	7 NO7 017		4572	15	0.3	2 3	x 2	6 8			0017	7
				-	ATER		AR TEMP	- VIS	NO.	SPE	CIAL							
				COL	DR TRANS DI	00 1 00		WET COD	DEPTHS	OBSERV	'A TIONS							
				-	0.	-	21 196	171 6	14			-						
				1	<del>-</del>		170		4			L						_
MESSENIGE TIME	OI NO	CARD	DEFTH Im'	T *C	5.14.	SIGMA=T	SPECIFIC VOLUME	DIN. A	1	CITY	0 ; ml.	PO <sub>4</sub> -P				\$1.04-51	pН	
HR 1 to			-					x 10 <sup>3</sup>	720			103.20	10 - 0	ug • ol l	ug - at 1	hå - ot		_
	1																	
		- T U		-14.		247	1 12501	and a		- 5 7								
- "		121	3 12 3	41-	3*31.					157								
						2473	1011078	1 1	1.5	254								
		151	- 10	-1-4	# # # = = = = = = = = = = = = = = = = =		2-21-			26→								
		171	2.0	1 = 3 8		247£ 2486	20314L4 2031 64	. 9*		131 114								
		- 5.	3.0	143+			2527 20			205								
		÷ + =		175	3457	2614	1028516	0155		155								
, ,		144		175	1467			i'.		154								
		3.7.	7 -	74-	-476	1524	5027h51	- 2r		154								
		100	. 7 ~	.745						150								
		T .	1.1	1744		3528	1127317			163								
		135		741						152								
		1.75		1.54	4.4-	7 4 2 4	21.25417	116		133								
		- T ]		1525	3444		111111	4.5		5.5								
				.=.:		1 2:53				, 5_								
					24.5	7 5 4 1	1.14451	- 45		: =								
		2.5	v.		٠					- =								
		- 7			3.44	1:17	1141.55			173								
		· T =		34.	24.2	2626	1.151.1			<u>, ,                                  </u>								
		→ ş		. 52 +	3 4 7.	16.32				5 _ 7								
			Co.	7 5 5	2.9	_ 5 0 5	10111637	7.11	+ +4									
			1 + _ 1	. 7 ^ .	2.4					951								
		Ŧ.				2577	1113514	1 52		4 : -								
		Τ.				200	1.11.	8 =										
			~ ~ ~	- 42	34.5	1 16-7				- C 4								
				14	341			1 - 1 1		77.								
		_	-		3 44 - 4	27	011-431	1		_ + .								
				1344			1 1659.			-								
		T		3.5		3-3-		12.73		T								
		1	-	354			, 17 4	1 - 1		5 . c 8 1 1								
		E TO	1.10	324		3745	2027246	11.48		511 117								
		+		J 4 1 3		3763	000000	171		925								
		т.		3.	9466	- 1 - 1	10.0076	174		158								
		· T.		3.			1.61.4	3 1		- 4								
		- T		Ţ-, ī	5465	3-65	111111111			- 50								

TABLE IV. Observed and interpolated oceanographic data for stations taken by USCGC PONT-CHARTRAIN at Ocean Station NOVEMBER, 23 July-13 August 1967, prepared from NODC Listing No. 31-1142 PW.

REFERENCE CTRF 1D.	SHIP	LATITU	OE 30	LONGITUDE	DRIFT	M A R		ITAT2	DN TI	IM E	YEA	2	CRUISE		TION	=	DEPTH TO	MAX. DEPTH	007	WAVE ERVATIO	240	WEATHER	CODE	5		NOOC STATION
CODE NO.	CODE	•	1/10	1/10	ı Z	10"	1*	MO D	AY H	R.1/10			NO.		MBER		BOTTOM	S'MPL'	OIR.	HGT PER	3.5	CODE	TYPE AN	T		NUMBER
311142	PW	3005	N	140015W		123	00	07 2	3 2	208	196	7	N09	001		- }	4297	15	09	2			6 6			0001
,					1		WAT	ER	V	VIND	1.	A RO	AIR	TEMP	. °C		NO.							1	1	
							COLOR	TRANS.	DIR.	SPEE		ETER	QRY		WET	VIS.	OBS.		CIAL 'ATIONS							
							CODE	(m)	DIK.	FORC	E U	mbsl	BUL	8	BULB		CHILABO									
									09	50	7 2	230	21	7	2 4 6	7	14									
	MESSENG									1		T			s	Δο	1			1	.		T			
	TIME	or NO.	CAR		(m)	1	°C	5	1.	SIG	MA-1	1	SPECIFIC V		DY	N. M 10 <sup>3</sup>		JNO DCITY	0 2 ml/l	PO4-		101A L-P	NO2-N ug - al/l	NO3-N ug - al/l	SI O4~ µg - al	
	HR 1/10					+		-				-	-			10-	-			-	-		<u> </u>	-	1	
		1 [													1										1	
		_	ST				065	347			442		0035	167	0	000		236								
	20	8	OBS				065	347			+42							236								
			51				046	347			447		0034	798	0.0	35		232								
	20	8	OB5				046	347			447					· -		232								
			51				944	347			+74		0032			968		205								
		_	51			1	855	347		24	¥98		0029	439	0	100	15	183								
	20	8	OBS			,	717	347		~ .	- 0 -		0030	201	_	1		1								
	2.0		51	-		_	717	344			506		0029	295	0	159		142								
	20	8	085				712	344			506		0027	412	_	220		140								
	20	0	51				623	343			522		0027	012	0	230		117								
	20	0	0B5				618	344			523		0027	064	0	299		115								
	20	0	085				599	344			532		0021	0 5 6	0.	299		115								
	20	O	51				532	343			542		0026	039	0	365		096								
			51				445	342			554		0024			429		072								
	20	8	QB5				422	342			557		002.	,,,		-		065								
		_	51				224	340			579		0022	596	0	548		003								
	20	8	083				187	339	_	_	584				-			992								
		_	51				097	340			504		0020	338	0	555		967								
			51				992	340			527		0018			751		938								
	20	8	039				1970	340			531							932								
			5.1		0	C	807	341	1		551		0016	022	0	923	14	885								
	20	8	083	5 TO41	. 5	(	781	340	06	2	554						14	877								
			51	r0 050	0	C	626	340	3	2	577		0013	501	1	070	14	830								
			51	060	0	C	493	340	5	2	595		0011	760	1	197	14	793								
	20	8	OBS				475	340		20	598							789								
			51			C	435	341			710		0010		1	308		787								
			51				396	342			722		0009	237	1	406		789								
	20	8	085				1391	342			724							790								
			S1				374	343			731		0008			494		797								
			\$1				353	344			739		0007	789	1	576		806								
	20	8	OBS				350	341			740							808								
			\$1				1334	344			745		0007			651		815								
			51				314	349	_		750		0006			720		824								
				TD 130			296	349			754		0006			786		834								
			51				278	349			757		0006		_	849		843								
			51				260	345			758		0006	002	1	909		852								
	20	8	OBS	5 1152	4	C	256	345	51	2	759						14	854								

REFERENCE	SHIP		. [	LONGINGS	E 5	MARSDEN SQUARE	STATION TH	ME	EAR		ATOR'S		DEPTH	MAX. OEPTH	005	WAVE ERVATION	WEA				NODC
CODE NO.	CODE	LATITU	1/10	LONGITUDE	INDCT	10, 1,	MO DAY H		t AR		STATION BEMUN		FO TO M	OF S'MPL'S	1	HGT PEP	000			1	TATION
31114	2 PW	2951		13950 W	1	086 99			967				3750	15	11	1	-	6 5	1		0002
,	' '				1 1	WA		IND	BARO	A 10 75	MP ℃	7=1	NO.		,	- 1 1	T	, ,,,		,	0004
							TRANS. OIR.	SPEED	METE	R DRY	WET	CODE	240	OBSERV	A TIONS						
						CODE		FORCE	Imbs	-	BULB	+-	-								
		,					17	506	230	0 244	22.		14			-	,				
	MESSENGE		CARE		(m)	T 10	5	SIGMA	A T	SPECIFIC VOL	JME .	E A D	SOL		O2 ml/I	PO4-P	TOTAL		NO3-N	SI O4-5	рН
	HR 1/10		TYPE							ANOMALY		x 103	. VELC	CITY		yg + aly!	µg - at.1	µg = at i	μg = a1/1	µg - ot l	
									- 1												
			ST			2097	3480	243		003565	57	0000		245							
	19		OBS			2097	34802	243						245							
	19	1	085			2075	34794	244						241							
			ST			2075	3480	244		003516		0035		241							
	10	,	ST			2071	3482	244		003497	0 1	0070		242							
	19	1	085			2068 20 <b>53</b>	34833 3482	244		003450		1105		242							
	19	1	ST OBS			1830	34633	245 249		003450	14 1	0105		238 177							
	1 7	1	ST			1824	3462	249		003039	0.4	0170		176							
	19	1	085			1726	34493	250		0000		0110		149							
	- /	-	ST			1726	3450	250		002901	70 0	244		149							
	19	1	085			1709	34569	251		00270				149							
		-	ST			1769	3456	251		002830	3 1	0316		149							
			ST	D 012	5	1677	3448	251	9	002823	33 (	387	15	143							
	19	1	085	014	9	1594	34409	253						120							
			ST	D 015	0	1586	3440	253	4	002690	8 (	) 456	15	118							
			ST	D 020	0	1247	3398	257	3	002324	5 1	581	15	011							
	19	1	085			1242	33978	257						009							
			ST			1094	3403	260		002022		0690		966							
			ST			0966	3408	263		001778	33 (	785		929							
	19	1	085			0955	34∪88	263						926							
			ST			0781	3402	265		001554	+1	0951		875							
	19	i	OBS			0778	34022	265		00133				874							
	10	,	ST			0614	3403	267		001334	+9	1096		826							
	19	1	085			0497 0496	34028 3403	269		00110	. 7	יכעו		794							
			ST			0443	3414	269 270		001191		1422 1335		794 790							
	19	1	085			0443	34230	270		001036	0	1 7 3 3		790							
	17		ST			0402	3424	272		000945	. 4	1435		791							
			ST			0373	3433	273		00085		1525		797							
			ST			0347	3441	273		000772		1606		803							
	19	1	085			0346	34418	274						804							
			ST			0324	3445	274		000725	55	1681		811							
			ST			0304	3448	274		000086		1752		819							
							3451	275		00064											
			ST	D 130	, 0	0286	ノマント	411	' _	00004	10	1819	14	829							
			5 T			0280	3454	275		00061		1682		840							

ID,	SHIP	LATITUI	DE		GITUDE	DRIFT	MARS		STAT	ON TI	WE	YEA	R	SPUISE	5	ATOR'S	4	DEP'	0 1	MAX, DEPTH OF		WAV ERVAT		WEA	3	CODES			NODC STATION NUMBER
NO.	CODE		1/10		* '1/10	_ ≤	10*	1.	MO	AY H	R,1/10			NO.	1	IU M 8 E	p	BOTT	OM.	S'MPL'S	DIR.	HGT P	ER SE	COD	TY	FE AMI			MINNER
1142	PW	2959	5 N	13	9570W		086			25 2		196	7	NI) 9	00			402	23	15	0.8	2				6 7			000
							[	WA	TEP	V	/IND	в.	ARO-	. A	JR TE	UP ℃	vis	NO		SPEC	IAL								
							ļ	COLOR	TRANS.	DIR.	SPEED	1	ETER mbs)		JLB	WET	COD	DEPT	s. THS	OBSERVA	TIONS								
							+	COUL	-	0.2	SU5	-	247	-	17	20	-	14											
									<u> </u>	02	302		/		1 1	_	1.	1,-				_			_	T	_	T	
	MESSEND	CAST NO.	CAI		DEPTH	(m.)	т	*C	s	• 1.	SIG	MA-1	r	SPECIFIC ANOM	VOLU ALY-XI	AA E	≨ ∆ D D1N, ∧	٠,	SOU		0 2 ml/l		4-P - 61'l	1014 L-		O2=N 3 = aU i	NO3-N pg = of 1	51 O <sub>4</sub> =5	
	HP 1, 1			re							1		1				> 10 <sup>3</sup>	1	*****	-			-	, , , , , , , , , , , , , , , , , , ,	3		py - 0. 1		-
			S	TD	000			095	34			30		003	630	7	0000			243									
	20	) ()	ОВ		000			095		705		30			_					243									
				TO	001			084	34			33		003	608	8	0036			242									
	20	0	08		001			084	-	701		33								242									
				10	002			070	34			37		003			007.			240									
				10	003			023	34			51		003	44/	4	010			229									
	20	) ()	ОВ	_	003			023		719		51		33	0.71	_	017			229									
	~ .			TD	005			827	34			01		0 U Z	911	1	017			178 178									
	2 (	) ()	08	5 T.D.	0V5			827 706	34	723		01		002	0 2 2	_	024			144									
	20	0.0	0B		007			706		552		18		002	023	0	0 2 4 1			144									
	20	0		STD.	010			687	34			525		002	760	. 5	031			143									
	20	10	08		010			687		591		525		002	100	_	031			143									
	20	, ,		TD.	012			621		49		533		002	694	. 4	038.			126									
				TD	015			527		37		545			586		044			099									
	20	00	08		015			518		358		546							15	097									
				STO.	020		1	247	34	0ъ	25	579		002	265	9	056	9	15	012									
	20	00	OB	35	020	15	1	224	34	044	2.5	582							15	004									
				STD	025			091		Ú8		510			980		067			966									
			S	STD	030			966	34	08		531		001	780	15	076			924									
	2 (	0.0	08		030			955		U84		533								926									
				TD.	040			789	-	01		553		U 0 1	575	5	093			878									
	20	00	O E		TO41			770		<b>U</b> 06		556								872									
				STD	050			628		0.2		576			358		108			831									
	_			STD	060			507		03		593		001	2Ut	9 4	121			799									
	2 (	00	0.8		061			497		U32		593		001	200	0	123			796									
				510	070			441		15		709			048		132			790 788									
	-	0.0		STD	080 1081			395 389		25 270		721 724		UUC	1920	4:4	142			789									
	21	00	OE	55 510	090			373		270 34		731		0.00	1846	. 1	151			797									
				5TO	100			354		42		739			1772		159			807									
	21	00	OE		7101			351		430		740		000						808									
	4 (			STD	110			335		45		744		000	733	3 7	166			816									
				STD	120			316		48		748			0697		174			825									
				STD	130			298		51		752			1663		180			934									
				STD	140			279		54		755			1627		187			843									
				STD	150			261		56		759			159]		193			853									
		00		35	T 152			257		568		760								854									

STD	NODC STATION NUMBER
CODE NO. CODE 1.10 10 10 10 10 10 10 10 10 10 10 10 10 1	N U * 9 E R
31 1142 PW 3007 N 139578W 122 09 07 26 188 1957 NO9 004 4755 15 08 2 6 7  WATER WIND COLOR TEAMS. DIR. STELL METER DRY WET COLOR SERVATIONS  WASSENUE CAST. CARD TYPE DEPTH IM: T C S SIGMA-T SPECIFIC VOLUME ANOMALY-EIS? SOUND ON M. NO. ON M. N	0004
WATER   WIND   BARCH   COLOR   SAME   SAME   COLOR   COLOR   SAME   COLOR	0004
COLOR   TRANS.   DIR.   STREED   DPY   WET   SUB   DEPTH   MI   TO   S *   SIGMA - T   STREED   STREED   STREED   DPY   WET   SUB   DEPTH   SUBSERVATIONS   STREED   DEPTH   SUBSERVATIONS   STREED   DEPTH   SUBSERVATIONS	
CODE   mm'   DIR.   OF   Mode   Mod	
09 S06 254 228 222 8 13	
WESSENCE CAST TIME OF NO. TYPE DEPTH IM: T C S SIGMA-T SPECIFIC VOLUME ANOMALY-ELS? TO VELOCITY OF MILE PROPERTY METERS OF	
HR 1 10 x 10 x 10 y 2 cm pg - a x pg -	
HR 110	
STD 0000 2092 3478 2437 0035672 0000 15244	
510 0000 2092 3478 2437 0035672 0000 15244	
188 065 0000 2092 34782 2437 15244	
106 UBS 0000 2092 34702 2457 13244 STD 0010 2085 3478 2439 0035513 0036 15243	
188 OBS 0010 2085 34784 2439 15243	
STD 0020 1996 3470 2456 0033898 0070 15220	
STD 0030 1915 3463 2472 0032439 0103 15198	
5 <b>T</b> 0 0050 177 <b>6 345</b> 1 2497 0030105 0166 <b>15</b> 160	
188 085 0050 1776 34505 <b>2</b> 497 15160	
STD 0075 1646 3440 2520 0027998 0239 15124	
188 OBS 0075 1646 34400 2520 15124	
5TD 0100 1660 3454 2528 0027338 0308 15134 188 0BS 0100 1660 34544 2528 15134	
STD 0125 1525 3442 2549 0025380 0374 15095	
STD 0150 1403 3442 2565 0023880 0435 15058	
188 OBS 0152 34278	
STD 0200 1197 3403 2586 0021952 0550 14994	
189 OBS 0205 1179 34∪15 2588 14989	
STD 0250 1057 3403 2612 0019559 0654 <b>149</b> 53	
STO 0300 0940 3406 2633 0017568 0746 14919	
188 OBS 0305 0929 34057 2635 14916 STD 0400 0761 3401 2657 0015345 0911 14867	
188 OBS T0410 0745 34003 2659 14862	
STD 0500 0598 3403 2681 0013133 1053 14819	
STD 0600 0481 3405 2697 0011601 1177 14788	
188 OBS 0610 0472 34054 2698 14786	
STD 0700 0434 3416 2710 0010332 1287 14787	
STD 0800 0399 3427 2723 0009197 1384 14790	
188 OBS T0812 0395 34278 2724 14791	
5TO 0900 0372 3435 2732 0008375 1472 14797	
STD 1000 0349 3443 2741 0007595 1552 14805	
188 OBS T1012 0346 34434 2741 14805 STD 1100 0327 3446 2745 0007215 1626 14812	
STD 1200 0307 3448 2749 0006853 1697 14821	
STO 1300 0290 3451 2753 0006529 1763 14831	
STO 1400 0275 3454 2756 0006216 1627 14841	
STO 1500 0261 3456 2759 0005918 1888 14853	
188 OBS T1518 0259 34568 2760 14855	

PY IO	.	SHIP	LATITU	- 1	LONGIT	1/10 E	MARS SQU	ARE	(	ON T		YEAR	ORIGI CRUISE NO.	STATIO	)N	DEPTH TO BOTTOM	DEPTH OF S'MPL	H OF		VE ATIONS	WEA- THER CODE	CODES		\$.	NODC TATION IUMBER
-	-+			1/10			10"	1			R,1/10		-		-		+	_	-	PEK JE			1		
3 1 1 1 4	42	PW	2959	N ]	1395	6 W	086					1967	NO9 00			4389	_ 15	11	. 2	1		6 6	1		0005
								WAT		V	SPEED	BARC	)•	EMP. 1	VIS.	NO. OBS.		ECIAL							
								COLOR	TRANS	OIR.	OR	METE (mbs		BUI	T COD	DEPTHS	OBSER	VATIONS	1						
								-			FORCE	22		2	1 7	14			1						
	_		1 1		-		$\overline{}$				<u> </u>			12.	-	لنبا			1					1	
		MESSENGR FIAME	CAST NO.	CAPI		EPTH (m)	Т	°C	s	٠/	SIGN	1 A A	ANOMALY-		NN. W		0 C   T Y	O <sub>2</sub> ml <sub>2</sub>		O4-P	TOTAL-P		NO3-N	SI O4-5	рН
		HR 1/10	I NO.	TYPE	-										x 10 <sup>3</sup>	4500	JUIT		p s	) + a1/I	PB + 014	1. to - 64	µg = e1/1	μg - at/1	-
																			-			1			
				51		0000		084	34		24		00359	95	0000		241								
		199		085		0000		084		709	24						241								
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				51		0010		076	34		24		00358		0036		240								
				S1		0020		074	34		24		00358	12	0072		241								
		19	5	OBS		0029		073		736	24		00055		016-		243								
				51		0030		067	34		24		00353	69	0107		241								
		199	,	OBS		0049 0050		920 904	34	854	24 24		00309	. 1	0174		205 201								
		199	_	S1 0B5		0073		660		02 389	25		00308	01	0174		128								
		19:	,	S1		0075		662	34		25		00283	54	0248		129								
		199	5	0B5		0098		669		530	25		0020)	,,,	0240	-	136								
		17.		S1		0100		666	34		25		00275	69	0317		136								
				SI		0125		626	34		25		00267		0385		128								
		199	5	OB3		0149		588		459	25				0 - 0 2		119								
				SI		0150		582	34		25		00264	57	0452		117								
				S	r D	0200	1	302	34	11	25	72	00233	39	0576	15	031								
		199	5	OBS	5 1	0202		292		098	25	73					028								
				S1		0250		117	34		26		00201		0685		975								
				S 1		0300		966	34		26		00177	75	0780		929								
		199		OB5		0305		953		083	26						925								
		199	5	OBS		0397		763		002	26		00150				867								
				S1		0400		758	34		26		00153		0946		866								
				\$1		0500		602	34		26		00131		1088		821								
				S1		0600		489	34		26		00117	19	1413		792								
		199	5	OBS	_	0601		488	_	048	26		00103	0.0			791								
		10		51		0700		432	34		27		00103	04	1323		786								
		19	>	085		0799		392	-	262	27		00001		1621		787								
				SI		0800		392 375	34 34		27 27		00091		1421		787 798								
				S1	10	1000		358	34		27		00084		1590		808								
		199	5	0B		1000		358		42 418	27		50077	70	1290		808								
		19		S1		1100		340	34		27		00072	69	1666		818								
					r D	1200		321	34		27		00012		1736		827								
				_	rD	1300		301	34		27		00063		1801		836								
					TD.	1400		281	34		27		00061		1864		844								
					TO	1500		259	34		27		00058		192		852								
		19	-	085		1500		259	34	568	27					14	852								

STEPHON   Store   LATITUDE   LONGITUDE   STORE   STO
1142 PW   3003 N   139585W   122 09 07 29 004 1967 No 9 006   4535 15 04 1   66 6   0000
WISTINGS   CAST   CAPP   COTE   SANS   COTE   COTE   SANS   COTE   COT
COLOR   No.   No
WESTING   CAST   CAST   CAST   CAST   CAST   CAST   CAST   STECHIC VOLUME   RE 1.10   CAST
Martin   M
STD
Oct   Oct
Oct   OBS   Oct
Oct
OBS
STD 0020 2072 3488 2450 0034520 0072 15243   STD 0030 2054 3488 2455 0034059 0106 15239   15239   STD 0050 1749 3445 2459 0029881 0170 15152   15239   STD 0050 1749 34450 2499 0029881 0170 15152   STD 0075 1685 3451 2519 0028053 0242 15137   004 085 0075 1685 3451 2519   STD 0100 1704 3468 2528 0027339 0312 15149   004 085 0100 1704 3468 2528 0027339 0312 15149   STD 0125 1627 3454 2535 0026711 0379 15128   STD 0125 1627 3454 2535 0026711 0379 15128   STD 0150 1522 3438 2546 0025681 0445 15098   004 085 0151 1517 34378 2547   STD 0200 1216 3402 2582 0022375 0565 15001   004 085 70204 1196 34006 2584   STD 0250 1073 3406 2611 0019642 0670 14959   STD 0300 0954 3408 2633 0017610 0763 14924   004 085 0303 0947 34082 2634   STD 0400 0759 34000 2657   STD 0500 0603 3403 2680 0013183 1071 14821   STD 0500 0603 3403 2680 001165 1195 14792   004 085 0604 0486 34058 2697   STD 0700 0433 3416 2711 0010320 1305 14788
STD   0030   2054   3489   2455   0034059   0106   15239   15239   15239   15239   15239   15239   15152   15152   15152   15152   15152   15152   15152   15152   15152   15152   15152   151537   1685   34512   2519   0028053   0242   151537   151537   151537   1685   34512   2519   0028053   0242   151537   15137   15154   151537   15154
004
004
Note
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STD   0100   1704   3468   2528   2528   2528   2514   2
004
STD 0125 1627 3454 2535 0026711 0379 15128 STD 0150 1522 3438 2546 0025681 0445 15098  004 085 0151 1517 34378 2547 15096 STD 0200 1216 3402 2582 0022375 0565 15001  004 085 T0204 1196 34006 2584 14994 STD 0250 1073 3406 2611 0019642 0670 14959 STD 0300 0954 3408 2633 0017610 0763 14924  004 085 0303 0947 34082 2633 0017610 0763 14924  004 085 0303 0947 34082 2634 14922 STD 0400 0759 3400 2657 0015376 0928 14866 004 085 T0402 0756 34000 2657 14865 STD 0500 0603 3403 2680 0013183 1071 14821 STD 0600 0490 3406 2696 0011665 1195 14792  004 085 0604 0486 34058 2697 14791 STD 0700 0433 3416 2711 0010320 1305 14788
STD 0150 1522 3438 2546 0025681 0445 15098 15096 15096 15096 1510 1517 34378 2547 15096 15
004
STD 0200 1216 3402 2582 0022375 0565 15001 14994 14994 14994 15TD 0250 1073 3406 2584 14959 1495
004
STD 0250 1073 3406 2611 0019642 0670 14959 STD 0300 0954 3408 2633 0017610 0763 14924  004 0BS 0303 0947 34082 2634 14922 STD 0400 0759 3400 2657 0015376 0928 14866 004 0BS T0402 0756 34000 2657 14865 STD 0500 0603 3403 2680 0013183 1071 14821 STD 0500 0490 3406 2696 0011665 1195 14792 004 0BS 0604 0486 34058 2697 14791 STD 0700 0433 3416 2711 0010320 1305 14786
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STD 0600 0490 3406 2696 0011665 1195 14792 004 065 0604 0486 34058 2697 14791 STD 0700 0433 3416 2711 0010320 1305 14786
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STD 0700 0433 3416 2711 0010320 1305 14786
272 282 282 282 282 282 282 282 282 282
310 0000 03/3 3 =
004 OBS T0800 0393 34259 2723 14788
510 0400 0374 3433 2732
004 085 10491 0357 34420 2750 000771( 1571 14807
STD 1000 0333 3442 2737 00073564 1567 14816
SID 1100 0330 2710 0001001 1710 16825
STD 1200 0317 3448 2748 0000991 1718 14829 STD 1300 0298 3451 2752 0006622 1786 14834
STD 1400 0279 3454 2756 0006248 1851 14843
STD 1500 0260 3457 2760 0005870 1911 14852
004 OBS T1500 0260 34568 2760 14852

NCE	SHIP	LATITU		101	GITUDE =	≃ MAR	SDEN	STAT	ION TI		YEAR		ORIGIN			DEPTH	MAX		W A V		WEA				NODC
ID, NO.	CODE	·	1/10	LON	17,710	Z 10*			DAY HE		TEAR	CRUISE NO.		TATIO		TO NOTTOB	OF S'MPL				THER	CODES			TATION
	D	3004				- 10.	1.	_	_			+	-		-		_	_	1 1	PER SEA	-	1175 200	-	-	
142	₽₩	3004	9 N	14	003 W	123	+ +	-			967	-		-		4297	15	07	2			7 4	1	ļ	0007
							WA	_	W	IND	BAR	∘ ⊢	AIR TE		VIS.	NO.	SP	ECIAL							
							COLOR	TRANS	DIR.	SPEED	M ET (mb		DRY BULB	BUT.	COD	OBS. DEPTHS	OPCER	VATIONS							
							CODE	-	0.5	FORCE	+				$\rightarrow$	-	<del> </del>								
									05	511	23	4 2	222	20	6 7	14	L								
	MESSENGR		CAP	D	DEPTH (m		*c		• : .			SPECIFI	¢ voru	ME	₹ △ Þ	so	UND		. PC	1-P	TOTA L-P	NO2-N	NO3-N	SI 04-S	
	TIME :	NO.	TYP		DEPTH (M	'   '		,	•••	SIGN	A-1		ALT-I		DYN, M x 10 <sup>3</sup>		OCITY	02 m1/1		- 011	μg + α1/1	νg = 61, l	ug = atri	µg - at	pH
	1110							+						$\dashv$		_									
		1	٠,	TD	0000		2087	34	7 1	24	2 2	003	3605	7	ouac	1.5	241		ļ	1					
	192	,	0B.		0000		2087		711	24		003	0000	1	0000		241								
	192		08:		0009		085		711	24							242								
		-		TD	0010		2085	34		24		0.03	3589	7	0036		243								
				TD	0020		2082	34		24			3492		0071		245								
	192	>	ОВ		0028		2080		932	24		00.	, , , ,	_	5011		247								
	- / 1	-		TD	0030		2079	34		24		003	3415	7	0106		247								
	192	2	08:		0047		2005	_	983	24		•••	,41)	,	0100		230								
		-		τD	0050		954	34		248		003	3158	0	0172		216								
	192	2	08:		0071		708	-	464	25				~	V L		143								
			S	TD	0075	1	1701	34		25		002	872	0	0247		142								
	192	2	08:	S	0095	1	659	34	473	25	23					15	132								
			S.	TD	0100	1	649	34	47	25	25	002	763	2	0317	1.5	130								
			S	τO	0125	1	583	34	41	25:	3.5	002	2669	6	0385	15	113								
	192	2	QB:	S	0145	1	509	34	341	254	+6					15	092								
			S	TD	0150	]	478	34.	30	255	50	002	2534	1	0450	15	083								
	192	2	OB:	S	T0196	3	236	34	∪31	25	79					15	007								
			S	T D	0200	1	1224	340	0.4	256	3.2	002	2237	6	0570	15	004								
			S	T D	0250	3	1085	341	08	26	1 1	001	1970	3	0675	14	964								
	192	2	08:	S	0290	C	985	340	U83	26	28					14	934								
			S	TD	0300	C	963	34	0.7	26	3.1	001	783	0	0769	14	927								
	192	2	OB:	S	T0384	C	789	34	U04	26	53					14	875								
			S	TD	0400	C	756	34	Ũ1	269	8	001	1529	6	0934	14	865								
				T D	0500	C	582	34	0.2	268	3.3	001	1294	9	1076	14	813								
	192	2	0 B	-	0580		484	-	036	269						14	786								
				TD	0600		472	34		269			1142		1197		785								
				TD	0700		1423	34		27		001	1013	0	1305		782								
	192	2	08		T0774		395		250	27							784								
			_	TD	0800		390	34.		272			901		1401		787								
				TO	0900		370	34		273		000	827	8	1488		796								
	192	2	OB:	-	T0964		1358		412	273							802								
			_	TD	1000		351	34		274			754		1567		806								
				T D	1100		332	34		274			702		1639		815								
				TD	1200		313	34		279			658		1708		824								
				1 D	1300		1295	34		279			0621		1772		833								
	10			TD	1400		277	34		279		000	0607	0	1833		843								
	192	-	083	5	T1466	C	265	34	561	275	9					14	849								

CE	SHIP	LATITU	DE	LON	4GITUDE	DC18	MARS	DEN	STATIO	ON TH	ME	YEAR	CRUISE	OPIGINA	TOR'S ATION		DEPTH TO	MAX.		WAVE SERVATI		WEA THER			5	NODC
10.	CODE	*	1/10		1/10		10*	11.		AY HE	21.10		NO.	SI	A TION UMBER	8.0	MOTTO	S'MPL"	S DIR	HGT PE	R SE			Q.T	N	JVBER
-	2	2000		1.		+		+ +		-		0.7		000		1.	207		1	1.1	+					
42	PW	3008	N	14	006 W		123			_		967				*	297	15	07	111	ŀ		6 6	<b>&gt;</b>		0008
								WA	<del>. t</del>	w	SPEED	BARG	>- ├─	AIP TEM			NO.	SPE	CIAL							
								COLOR	TRANS,	DIR.	FORCE	METE		DRY	BULB C	O BOS	OBS. EPTHS	OBSERV	VATIONS							
									1	07	504	24		250	228	-	14	-		1						
Γ.			-						1			-				_	1	7	-					1	100 0	
ľ	rESSENGR TIME	LCAST UNO.	CA TY		DEPTH	(m)	T	*C	5	V	SIGN	A-T	SPECIFI	C VOLUN	,E	. M	VELC		O <sub>2</sub> ml/	PO A		TOTAL - P	NC2=1	1 1103-1-		р∺
,	48 1/10						l		+						* 1	) *					-	<u>.</u>	-	+	+	
				- 0			1		1								1	250							1	
				TO	000			117	347		24.		003	36645	000	0.0		250								
	199	9	ОВ		000			117	347		24.							250								
	1.5	_		TD	001			109	347		24		003	36394	• 00:	3 7		249								
	199	9	05	_	001			100	347		24		0.0					249								
			_	10	002		2	206	347		24	5/	003	33859	9 00.	12	15	223								
	199	4	08		002			010	347		24		0.0	2106			1.5	3.3.0								
	10			TD	003			919	347		24		003	31884	4 010	ノウ		200								
	199	9	οв		004			796	346		25			.01.	0.1			168								
		_		TD	005			792	346		25		UO.	29424	4 01	06		167								
	199	9	ОВ		007			719	346		25		0.0	202	7 02:	2.0		149 149								
	100			TD	007			719	346		25.		00.	4803	7 02.	98		147								
	199	4	ОВ	5 T0	009			699 696	346		25. 25.		0.0	2730:	3 030	7		147								
				T0	010			615	345		25			2130. 2652(				124								
			_	10	012			518	343	-	25			2550				097								
	199	D	08		015			518	343		25	-	001	2,000	, , ,	,		097								
	1,7	,		10	020			272	340		25		00.	2291	1 05	50		021								
	199	9	08		1020			259	340		25					•		017								
	• /	,		TD	025			115	340		26		0.0	2017	6 06	5.8		274								
				TD	030			981	340		26			1796.				934								
	196	9	OB		030			976	340		26							933								
	- 1			TO	040			770	340		26		00	1546.	2 09:	30		870								
	19	9	OE		T040	2	0	766	340	10	26	57					14	869								
			S	TD	050	0	0	607	34(	3	26	80	00	1325	0 10	74	14	823								
			S	TO	060	0	0	491	340	)4	26	95	00	1178	8 11	99	14	792								
	19	9	0.6	S	060	4		487	340		26							791								
			S	TO	070			436	34		2 <b>7</b>			1043				788								
				TO	080			396	342		27		00	0931	1 14	9		789								
	19	9	O E	_	T080			1395	347		27							789								
				TO	090			376	34.		27			0854		-		798								
				TO	100			357	344		27		000	0779	1 15	80		808								
	19	9	0.5		100			356		+20	27					_		808								
				OT.	110			338	344	-	27			0740				817								
				TO	120			319	344		27			0704				826								
				STD.	130			300	349		27			0666				835								
				OT.	140			281	349		27			0629				844								
				TO	150			263	349		27		00	U592	0 19	23		853								
	19	9	0.5	35	T150	) 4	C	262	34	67	27	60					14	854								

					- ox	MARS	DEN	STAT	ON II	ME		T	ORIGIN	ATOR'S		DEPT	H   Des	AX.		WAVE		WEA		OUD.			NODC
		⊃E		GITUDE	+DC	SOU	ARE	1	G M T I		YEAR					10		OF L				THER	c c				TATION
		1/10		1/10	=	10"	1.	MO E	AYH	R.1/10		NO.		NU M BE	٠.	80110	S,W	PL'S	DIR	HGT PE	R 564	1 000	11795	LAMI			*******
P₩	3005	9 N	140	0010W		123	00	07	31 1	.84	1967	NO	00	9		447	2 1	15	09	1			6	17		1	0009
							WA	ER	W		BAR	0-	AIR TE	MP. °C	- 1			SPECI	AL								
						-	COLOR	TRANS	DIR,	OR	7			W ET	000	*I OB2	Ont	ERVA	TIONS								
						-	CODE	-	,,	_	`	-			+-	1 1	-										
								ļ	11	307		10 1 2	28	1						-			_			,	
				DEPTH	m l		"C	2	•/	516.	7 - A M	5 PECIFI	c vote	ME	Z A D				3 m l/1						NO3-N	5104-5	
		TYP	E	0.01111				-				ANON	(ALT-1)		x 10 <sup>3</sup>		ELOCITY			νg -	011	μg - ot/	ng -	at/s	μg - a1/l	μg + αl.	
												Î															
	1	S 1	ro '	000	0	2	140	34	78	24	23	00	3697	'o ' (	0000	) 1	5256	5		1			•			1	
18	34	085	5	000	O	2	140	34	775	24	23					1	5256	5									
		51	rρ	001	0	2	131	34	78	24	26	00:	3677	1 (	003	7 1	5259	5									
18	34	085	5	001	0	2	131	34	775	24	26					1	525!	5									
		S1	TD																								
		51	TD									00.	3357	6	010.												
18	34	089	5	003	O-	1	956	34	512	24	60					1	5210	0									
		51	TD	005	0	1	870	34	71	24	90	00	3082	3	0172												
16	34	085	5	005	0	1	870	34	712	24	90																
		51	T D	007	5	l	756	34	65	25	13	00.	2866	9	0246												
18	34	QB5	\$														-										
												00.	2769	• 5	031												
18	34																										
												00.	2540	) 3	044												
18	34											0.0			3 E												
												00.	2262	. 1	0 > 6.												
1 8	84											0.0			0 + 7												
	2.4											00	1113	0.6	0111												
1 4	54							-				0.0	166"	2.0	002												
1.0	Q /.											00	1226	U	U 7 31												
1.0	94											0.0	1 2 2 /	. 3	100												
1	97											00	1107	, 2	120												
1 (	04											0.0	1027	7 4	131												
1.1	8.4					_						00	I		1												
10	<b>-</b> →		_									0.0	1837	75	149												
1.0	84														5												
•	- '											00	0712	26	165												
						_		_	_																		
		_																									
1	84	OB:		7152			257		572		760				-		485										
	## 16	Pw   3005	Nessence   Cast   Cas	No.   No.	MESSHAGE   CAST   CARD   DEPTH   MESSHAGE   CAST   TYPE   DEPTH   MESSHAGE   CAST   TYPE   DEPTH   MESSHAGE   CAST   TYPE   DEPTH   MESSHAGE   CAST   TYPE   DEPTH   MESSHAGE   CAST   CAST   COLO   COLO   CAST   COLO   CAST   COLO   CAST   COLO   CAST   CAST   CAST   COLO   CAST   COLO   CAST   COLO   CAST   CAST   COLO   CAST   CAST   CAST   CAST   CAST   CAST   CAST   CAST   COLO   CAST   CODE   CATE   SMIP   LATITUDE   CONGRUDE   SQUARE   STD	SAME   COORDINATE   COORDINAT	SMIP   CODE   LATITUDE   CODE   LATITUDE   CODE   LATITUDE   LAT	SMIP   COORDING   CO	STID	SMEP   CODE   CAST   CARD   CODE   STIP   ODE   CAST   CASD   STIP   ODE   STIP   ODE   SMESSINGE   CAST   CAST   CAST   CAST   COLOR   COLO	STD	SMP   SMP	SMIP   SMIP	STD   OOO	SHIP   CANTILUDE   CONCEILUDE   STOP   STOP   CONCEILUDE   STOP   CONCEILUDE   STOP   CONCEILUDE   STOP   CONCEILUDE   STOP   CONCEILUDE   CONCEIL	SHIP   SHIP	SMITUDE   LINGUISTIC   Lib   Total   Lib   Lib   Total   Lib   Total   Lib   Total   Lib   Total   Lib   Lib   Total   Lib   Lib   Total   Lib   SMAP	SMAP   SMAP	Substitution   Subs	Signature   Sign	Signature   Sign						

ID.	SHIP	LATITU	IDE	LONGITUDE	MA MA	RSDEN UARE	STATION TI (GMT)	ME	CRUISE	NATOR"	N	TO D	MAX, EPTH OF	08	WAVE SERVATION:		ER CODE	5	2	NODC
NO.	1000		1/10	1/10	ī 10.	1*	MO DAY H	2,1/10	NO.	NUMB	P	BOTTOM S'	MPL "S	DIR.	HGT PER 1	EA CO	DE TYPE AN	17		I U N' BEP
142	PW	3003	37N	140007w	12:	3 00	08 01 1	95 196	7 NO9 0	10		4297	15	14	0		7 2			0010
					1	WA		IND	A ID T	EMP. °C		NO.	_		101	1			1	0010
						COLOP	TRANS. DIR.	SPEED AAF	FO- DRY	WEI	VIS HOODE	085.	SPECI BSERVA							
						CODE	Im) DIR.		bs1 BULB	BUL		DEPTHS	DJEKTA	110113						
							12	506 2	30 239	21	1 7	14								
			1				1		Τ'		< 1 0	_			T			T		
	A1ESSENGR TIME	of NO.	CARD	DEPTH (n	n)	r *c	٠.٠ 2	SIGMA-T	ANOMALY-	10ME 210 <sup>7</sup>	₹ A D.	VEFOC1		0 g m (z	PO4-P	1OTAL.		NO3=N NO3=N	\$1 O4-\$1 10 - 01	ρН
	HR 1, 10	-		_	$\rightarrow$				-	-	x 10 <sup>3</sup>	-				-		pg - 01 1	-,	
					ļ				-											
			ST			2160	3473	2414	00378	35	0000	1526								
	19	5	OBS	0000		2160	34728	2414				1526								
			ST			2140	3472	2419	00374	33	0038	1525								
	19	5	OBS	0010		2140	34716	2419				1525								
			ST			2137	3493	2436	00358		0074	152€								
	1.0	•	ST			2133	3502	2444	00351	32	0110	_								
	19	5	085	0030		2133	35019	2444	04.13.3	2.1	0.1.7	1526								
			ST			1917	3480	2484	00313	31	0176	_								
	19	5	OBS	0050 0 0075		1917	34799	2484	00000		0761	1520								
	19	6	ST OBS	0076		1741 1737	3459 34586	2512 2513	00287	54	0251	1515 1515								
	19	)	ST			1700	3461	2523	00277	D 4	0322	1514								
	19	c	OBS	0100		1698	34607	2524	00211	80	0322	1514								
	19.	,	ST			1610	3446	2533	00269	20	0390	_								
			ST			1499	3432	2547	00256		0456	1504								
	19	5	OBS	0154		1480	34296	2549	00230	74	0 + 50	1508								
	• /		ST			1210	3407	2587	00218	9.R	0575									
	19	5	OBS	T0207		1176	34052	2592		, ,		1498								
			ST	0250	)	1058	3406	2614	00194	07	0678	1495	54							
			ST	0 300	) (	0936	3406	2635	00174	53	0770	1491	17							
	19	5	OBS	0309	)	0916	34063	2638				149]	1 1							
			ST	0400	) (	0746	3400	2659	00152	04	0934	1486	51							
	19	5	OBS	TO41		0728	33999	2661				1485	56							
			ST	0500	)	0599	3400	2679	00133	39	1076	1481	19							
			ST	0600	)	0491	3404	2695	00118	0.3	1202	1479	<b>3</b> 2							
	19	5	085	0616	)	0477	34053	2697				1478	39							
			ST	0700	)	0436	3415	2709	00104	30	1313	1478	38							
			ST	0800	)	0397	3425	2722	00093	22	1412	1478	89							
	19	5	OBS	1081€	> 1	0392	34267	2723				1479	90							
			ST			0375	3435	2732	00084		1501	1479								
			5 <b>T</b>			0356	3442	2739	00077	50	1581	1480								
	19	5	OBS			0353	34433	2740				1480								
			ST			0337	3446	2744	00073		1657									
			ST			0318	3448	2748	00069		1728	1484								
			ST	_		0300	3451	2752	00066		1797									
			ST			0282	3454	2755	00062		1861	1484								
			ST	_		0264	3456	2759	00059	46	1923	1485								
	19	5	OBS	T1525	)	0260	34571	2760				1485	56							

TRY 1	).	SHIP	LATITU	DE	LON	GITUDE STUDE	MAPS SQU	DEN ARE	STAT	ION 1 GMTI	TAME	YEAR	CR	ORIGIN	ATOR'S		DEPT	DE	AX. PTH C	W. SBSER	A VE VA TIONS	WEA	CODE			NODC
ODE 1		CODE	•	1/10		1/10 2	10"	1 1.	MO	YAC	HR.1/10				UMBE		BOTTO	N,S WC	PL'S DIR	E MG	T PER SE	CODE	TYPE A	AT _		NUMBER
3111	42	PW	3004	N	140	002 W	123	00	08	2	192	1967	N	09 01	1		438	1	15 1	3 1			3 2			001
;								WAI			WIND	1	_	AIR TEA		7-	NO.			^'^	, ,	,	1 3.2	. 1	1	901
								COLOR	TRANS.		SPEED	METE		DRY	WET	COD	. 085		SPECIAL ERVATION							
								CODE	(m)	DIR.	FORCE	(mbs	s)	BULB	BULE		DEPTH	HS OF		``						
										09	505	23	4	256	22	2 7	14									
	1						T		<del> </del>		1		-		$\top$	<b>Σ</b> Δ D	╁.							1	1	
		MESSENGR TIME (	LCAST NO.	CAR		DEPTH Imi	Ţ	*C	5	٠	SIGN	T-AN	SPE	NOMALY-X1		DYN. M		ELOCITY ELOCITY	, O2 m	171	PO4-P ug - o1/1	TOTAL - P	NO2-N			
		HR 1/10			-				-		1				-	x 10 <sup>3</sup>				_	py	py - 0	59 - 511	pg = 617	pg - 0	-
									1			i	i							- 1				1	1	
					Ţ D	0000		175	34		24		Ç	03795	6	2000	) 1	526	5							
		192	-	08:		0000		175		766	24							526								
					TO	0010		143	34		24		C	03702	7	0037		525								
		192		08		0010		143		783	_							525								
					TD	0020		149	35		24			03492		0073		.526								
					TD	0030		154	35		24		Ç	03402	4	0108		.527								
		192	?	08		0031		155		261	24		_					527								
		100			TD	0050		025	35		24		U	03212	6	0174		.523								
		192	2	08:		0051		017		050	24		_		-	0 15 6		.523								
		100			TD	0075		770	34		25		Ų	02877	ל	0250		516								
		192	2	08	5 T D	0076 0100		764 729	34	671	25 25		_		7	221		516								
		192	,	0B:		0102		725		оу 693			Ų	002783	1	3321		515 515								
		196	-		s TD	0102		678	34		25			002726	_	390										
					TO	0150		590	34		25			)02726 )02634		)457		.514 .512								
		192	,	0B:		0154		573	-	466 466	_			002034	U	J 4 5 1		511								
		1 / 2	-		TO	0200		283	34		25		0	02326	7	0>81		502								
		197	2	οв:		T0209		236		022			_					500								
				S	TD	0250	1	090	34	04	26	0.6	С	02010	6	0689	1	496	5							
				Š.	TD	0300	ō	943	34	06	26			01761		784		492	ō							
		197	2	08:	S	0308	0	922	34	058	26	37					1	491	3							
				S	TD	0400	0	749	34	00	26	58	C	01526	9	0948	3 1	486	2							
		192	2	08	S	T0408	0	735	33	992	26	60					1	485	8							
				S	TD	0500	0	594	34	00	26		C	01327	4	1091		481								
				S	ΤĐ	0600		482	34	U5	26	96		01162		1215		478								
		192	2	0B	S	0612	Ü	471	34	062	26	99					1	478	6							
				S	TD	0700	0	429	34	17	27	12	C	01019	Q	1324	. 1	478	5							
				S	ΤD	0800	0	391	34	27	27	24	C	00910	5	1421	. 1	478	7							
		197	2	08:		T0811		388		279								478	8							
					TO.	0900		371	34		27			00836		1508		479	6							
					TD	1000		352	34		27		C	00770	4	1589	_	480								
		192	2	0В.		T1010		350		425								480								
					TO	1100		333	34		27			00733		1664		481								
					TD	1200		315	34		27			00699		1735		482								
					T D	1300		297	34		27			00664		1804		483								
					TO	1400		280	34		27			00629		1868		484								
				_	TD	1500		263	34		27		C	00594	9	1929		485								
		192	2	0B:	S	T1516	0	260	34	566	27	60					1	485	5							

REFERENCE	SHIP	LATITUI	DE .	LONGITUDE	M AR		STATION T	IME .	YEAR	CALUE	ORIGIN			DEPTH	MAX. DEPTH	ОВ	SERVA	VE ATIONS	WEA			NODC TATION
TRY ID.	CODE		1. 10	LONGITUDE E	10*		MO DAY H	R,1/10		CRUIS NO.		STATIC NUMB		BOTTOM	S'MPL'S			FER SE				UMBER
311142	PW	2828	N	14003 W	087	80	08 04	003	1967	UN	9 01	2		4755	13	11	1			6 5		0012
						WAT	TER V	WIND	BAR	o. L	AIR TE	MP. C		NO,	SPEC		]	,				
						COLOR	TRANS. DIR.	SPEED OR FORCE	MET	£R	DRY BUL®	BUL		OBS. DEPTHS	OBSERV							
							09	508	2.3	37	233	21	1 7	13								
	MESSENGE TIME HR 1 10	CAST NO.	C ARE		ī	°C	s ·4.	SIG	MA-T		FIC VOLU		₹ ∆ D DYN. M x 10 <sup>3</sup>	. AETO	JND	O <sub>2</sub> ml		O4-P	TOTAL-			рН
																				-		
		, ,	ST	0 0000	2	227	3525	24	35	00	3582	3	0000	15.	284							
	003	3	OBS	0000	2	227	35253	24	35						284							
	003	3	085			200	35248	24	43						279							
			ST			196	3525		44		3508		0035		278							
			ST			152	3523		54	00	3409	O	0070		268							
	003	3	008			124	35214		61						261							
			ST			116	3521		63	00	3330	7	0104		260							
	003	3	OBS			054	35166		76						245							
			ST			019	3512		82	00	3154	U	0169		236							
	003	3	OBS			900	34999		04						205							
			ST			89U	3500		0.7	00	2930	1	0245		203							
	003	3	OBS			866	35007		13						199							
			ST			861	3501		15		2861		0317		199							
			S T			845	3501		19	0.0	2828	15	0388		198							
	003	3	085			835	35016		22						198							
			ST			782	3492		27		2755		0458		183							
			ST			532	3453		56		2494		0589		111							
			ST			310	3426		82	00	2252	4	0708		044							
	003	3	085			195	34150		96						008							
	0.0		ST			116	3413		09	0.0	1999	0	0814		983							
	003	5	085			965	34089		32	0.0	1. 60		0003		936							
			ST			870	3407		46		1655		0997		909							
	001	,	ST	_		718	3403		65	00	1473	0	1153		867							
	003	•	OBS			656	34011		72	0.0	122.	0	120		850							
			ST			614	3406		81		1321		1293		843							
	201		ST		U	541	3416	26	98	00	1164	っ	1417	14	831							
	003	,	OBS		_	. 7.0	34174															
	200		ST			478	3425		13	0.0	1029	2	1527		823							
	003	•	085			432	34314		23		003-				819							
			ST			425	3432		24		0922		1025		818							
			ST			382	3439		34		0827		1712		818							
			ST			349	3444		41		0759		1792		821							
			ST			326	3449		48	00	0703	50	1865		829							
	003	3	089	T1296	0	314	34517	27	51					14	840							

FERENCE IV ID.	7.5	ODE	LATITU	- 1	LON	GITUDE	NDC1#	MARS	ARE	(	ON TI		YE AR		ATOR IITATZ IM UN	NC	$\exists$	DEPTH TO BOTTOM	MAX, DEPTH OF	1	SERV	A TIONS	1	VEA- HER ODE	CODES			NODC STATION NUMBER
	+			1/10		17.10	-	10*			AY H				NUM	SEK	+		S'MPL'S	DIR,	HG	T PER S	.E.A.		TYPE A MI			
1 1 1 4	2	₽₩	2831	N	14	0070W	Į	087					967					4718	14	0.8	1				7 6			0013
								-	WA.	ER	W	DAI	BARC		MP.	2	VIS.	NO,	SPEC	:IAI								
									COLOR	TRANS.	DIR,	SPEED	METE		BU BU	1	006	OBS.	OBSERV	ATIONS								
								-	CODE	-		FORCE	+		+	-					-							
	_				,						08	510	26	4 239	2	17	7	14			L							
	ME	SSENGE	CAST	CAF	20	DEPTH Im		,	*c		٠/	SIGM		SPECIFIC VOLU	JME	₹ Z DYN	0 2	sou	ND		.	PO4-P	TOTA	1-1	NO2-N	NO3-N	\$104-5	
		TIME 6	NO.	TYP	PE	DEFIN IN	''			,	•••	SIGM	A-1	ANOMALY-X	10"	X	10 <sup>3</sup>	VELO	CITY	O 2 m1/		9 = 01/1	₽9 •		μg = a1/1	µg = 01/1	µg - al	ρН
																	_		_		$\top$		1					
	- 1		J	5	TD	0000	)	2	191	35	26	244	46	003480	12 '	00	٥٥	152	275		- 1		1	- 1	ı		1	1
		202		OB		0000			191	35		244		003.00	_	•	00	152										
		202		QB.		0008			187		260	244						152										
				S	TD	0010	)	2	183	352		244	+8	003462	0	00	35	152										
				S	T D	0020	,	2	165	352	2.7	249		003411		00												
		202		60	S	0029	)	2	150	35	280	245	9					152	269									
				5	ΤD	0030	)	2	149	352	28	245	9	003365	2	01	03	152	269									
		202		08	S	0047	•	2	122	352	259	246	5					152	265									
				5	ΤD	0050		2	94	35	23	247	70	003266	4	01	69	152	257									
		202		08		0073			936		81	250						152										
					TD	0075			930	350		250		002977	1	02	47	152										
		202		08		0092			885		26	251			_	- 0		152										
				_	T D T D	0100			881	350		251		002898		03		152										
		202		0B:		0125			855 831	350	) 25 ) 25	251 252		002844	5	03	93	152										
		202			TD.	0150			80B	349		252		002780	17	04		15] 15]										
		202		OB:		10185			705	34		253		002760	0	04	00	151										
					TD	0200			505	346	-	254		002558	. 1	05	96	151										
					TD	0250			32U	343	_	258		002235		07		150	_									
		202		OB:	5	0280			185	34		259			_		•	150										
				S	TD	0300		1	128	34	15	260	8 (	002005	7	08	22	149										
		202		08	5	10373		0 4	939	340	91	263	86					149	931									
					TD	0400			877	340		264	16	001654	5	10	05	149										
				-	TD	0500			586	340		267		001408	7	11	58	148	355									
		202		OB:		0558			504	340		268						148										
					T D	0600			572	340		268		001244		14		148										
					TD	0700			504	342		270		001088	1	14	08	146										
		202		OB:		T0740			481	342		271						148										
					TD.	0800			454	342		271		000970	_	15		148										
		202			T D	0900			413	343		272		000878	2	l٥	03	148										
		202		OB:		0926			403	341		273			_			148										
				_	TD	1000			377	344	_	273		000799		16		148										
					TD TD	1100 1200			347	344		274		000735		17		148										
					TD TD	1300			321 302	345		275		000682		16		148										
					TD	1400			287	349		275		000652		19		148										
		202		0B:		T1426			284	349		275		000633	4	19	00	148										
		202		00.	,	(1720		0.		54:	142	210	, 0					146	500									

REFERENCE	SHIP					E MA	RSDEN		MIT NO				ORIGIN	ATOP'S		DEPTH	DEPTH			VE A VE	W	EA-	CLOUD			NODC
ODE NO.	CODE	LATITU	DE 1/10		1,18	ā 🖁 📖			MTI		r E A R	CRUISE NO.		TATION		TO BOTTON	0.7	"		A TIONS	-1	IER	CODES			STATION BENUN
	0.1	3021		2.1		10	_	-	AY HR.			-	-				3 14/7	-	-	T PER S	EA	$\rightarrow$	TYPE A ACT			
311142	PW	2831	N	14	003 W	0.8		08 0	5 1 Y	-	967		O1			4663	14	0.9	7   2		1		6 7	1	1	001
							-		_	SPEED	BARO	ı-	DRY	WET	V+5	NO. 085.		CIAL								
							CODE		DIR.	OR FORCE	(mbs		ULB	8018	COD	DEPTH	OBSER	VATION S	5							
										510	26	4 2	39	20	7	14			1							
							1	+			-				-	+	t		4			_				1
	MESSENC	4 NO.	CAF		DEPTH I	n i	ĭ °C	ς.	4.	SIGM	A - 1	ANOM	ALY-II		YN. N	L	OCITY	O <sub>2</sub> ml		PO4=P 19 - 01/1	TOTAL up = qu	- 1	NO 2=N ug - at/1	NO3=N pg - at/1	\$1 O4 \$	
	HR 1/1	0												-	x 103	-			1			-	.,	pg - 0111	74	-
			_	_	2000	,		250	.		_															
	19	. 7	- S - OB	TD	0000		2179 2179	352 352		244		003	448	3	0000		272									
	19		08	_	0008		2172	352	-	244							5272 5271									
		•		1D	0010		2169	352		245		003	428	5	)034		5271									
				TD	0020		2154	352		245			3401		)U69		5269									
				TD	0030		2134	352		246			361		0102		5265									
	19	7	ОВ		0030		2134	352		246		00.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		, - 0 .		5265									
	19	7	ОВ		0045		2095	352		247							5257									
			S	ΤD	0050	)	2053	351	7	247	7	003	204	3	0168	3 19	5246									
	19	7	08	S	0070		1930	350	18	249	8					15	214									
				TD	0079		1918	350		250		002	986	8	249		5211									
	19	7	ОВ		0092		1880	350		251							5203									
				TD	0100		1870	350		251			889		0319		5201									
	19			TD	0129		1832	349		252		002	822	1	)90		5194									
	15	, ,	08	5 TD	0136		1811 1789	349 349		252		00-	764		34.66		5190 5185									
	19	7	08		T018		1699	347	-	253		002	104	0	0460		5162									
	• •	,		TD	0200		1582	346		255		002	536	9	0593		5128									
				TD	0250		1298	342		258			221		771		5040									
	19	7	οВ		0268		1217	341		259	-						5014									
			3	TD	0300	)	1131	341	6	260	9	002	2003	7	)81°	7 14	4989									
	19	17	OB	S	T036	l	0979	341	04	263	1					14	4944									
				ΤD	0400		0879	340		264			655		1000		4913									
				TD	0500		0675	340		267		001	403	8	115:		4850									
	19	7	08		053		0625	340		267							4835									
				10	0600		0572	340		268			244		1286		4826									
	1.0		_	TD	0700		0507	341		270		001	099	2	140:		4817									
	19	• 1	08	S TD	0710		0501	341 342		270 271	-	000	988	_	150		4817 4817									
	10	7	0B		10899		0425	343		272		000	708	9	100		4817 4819									
	197			S TD	0900		0425	343	-	272		000	892	0	160		4819									
			_	TD	1000		0390	344		273			815		168		4822									
				TD	1100		0359	344		274			749		1769		4826									
				TD	1200		0332	345		274			695		183		4832									
				TD	1300		0309	345		275			660		1909		4839									
	19	7	ОВ		T1396		0290	345		275							4847									

REFERENCE	SHIP	LATITU	,	LONGI	THE	E 5	MARS	DEN	STATI	ON TIA	ΛE	YEAR		ORIGIN			DEPTH	MAX	280	WAVE ERVATIO	) N S	WEA-	CLOUC			NODC TATION
TRY ID.	CODE	·	1/10	CUNG	1/10	IN DC	10"		MOID		1.10	· CAR	CRUIS!		OITATIO		BOTTOM	OF S'MPL'S		HGT PER		CODE	TYPE AN	1	1 3	UMBER
	- D.			2 ( 2)	17 10	$\rightarrow$					_	. 0 / 7	+	<b>+</b>			. 756	+			36.4	+				
31 1142	₽₩	3012	N	1400	08 W	1	123					1967		O1			4755	16	09	2		1	813	1		001
							- }	WA.	-	w	IN D SPEED	M ETI	>- ⊢	DRY IE	WEI	VIS.	NO. 085.	SPEC								
								CODE	TRANS	DIR.	OR	1		IUL8	BUL		DEPTHS	OBSERV	ATIONS							
							ř			06	510	24	0 2	39	21	7 7	14									
									-	-							1			Т			, <del>-</del>			
	MESSENGE TIME	CAST	C A R		DEPTH (	n:	T	'C	S	٠	SIGA	T-AN	SPECIFI	VOLU	AA E	₹ Δ D	I. VELO	THO	O 2 m1/1	PO4-		1014L-P	NO2-N	NO3-N   ug + at 1	\$1 O4~\$1 ug • of	ρН
	HP 1 10	1							+		-				-	y 10 <sup>3</sup>	-	-			-			29 - 01 -		-
				_											,			1								1
	10		S.		0000			194 194	348 348		24		00	8817	1	0000		271 271								
	19	1	OBS		001			190	348		24		00.	811	4	0038		271								
	19	,	OBS		0010			190	348		24	-	00.	011	0	0036		271								
	1 /	1	5		0050			154	348		24		00	3720	3	0076		263								
			S-		0031			989	348			39		554		0112		248								
	19	}	OB:		0034			154	348			45	00.		,	- 12		239								
	• •	•	5		0050			85 J	346			90	0.0	0.79	4	0179		183								
	19	1	OB;		00.6			323	340			OA						176								
			5		5 7	-		75e	246		د 5		002	845	Ü	0453		160								
	19	1	083		0.8	1	1	740	341			15						157								
			3.	CT	0100		1	7.6	346	· t	25	27	000	739	44	0323	1.5	146								
	19	1	OE:	5	100	-		584	346	46	2 E	3.0					1.5	144								
			5		Ulzi			55.7	3 4.		25			2606		0389		105								
				TD	0.184			+1.2	342			F 7	00	2464	6	045		UEC								
	19	1	0.5		711			74	3.4.3	-	2,1							(149								
				7.)	)200			167	340			92	00	1140	7	J568		984								
	19	1	08	-	T0:20			132	34(			97	0.0	0.24		017		973								
			_	10	025			047	34.			14		934		0670		949								
		,	_	CT	0301			948	340	-		33	00	766	· U	0762		922								
	19	1	0B:		031			923	240			37	00	E / **		0021		915								
	1.0	,	OB:	TD	-04C0 *042,			765	340			56	UU	547	d	0928		868								
	Ιq	1		-	050			729 540	34(			61	0.0	200		1079		858 836								
				TD TD	060			540	340			.73 .89		1388 1243		1406		813								
	19	1	OB:		062		0	J 4 C	340		۷.0	0 7	00	(24)		1400	,	010								
	1 4	1		70 7	070		0	465	34		27	'υ€	0.0	1077	4	1322	2 14	800								
				T)	080			407	34			20		1943		142		793								
	19	1	05		T083			392	34			25	0.0		_			793								
				T D	090			377	34			31	000	850	7	1513		799								
				TD	100			356	340			39		775		1594		807								
	19	1	08:	S	T104	2	0	348	344	+42	27	42					14	811								
				TD	110	Э	Ũ	337	340	+6		44	000	733	8	1070		817								
			5	TD	120	0	Ũ	318	344	+8	2.7	48	000	701	Ü	1741	14	825								
			\$	TD	130	0	0	300	345	50	27	51	00	668	9	1810	14	835								
			5	ŢΟ	140	Û	0	283	345		27	55	000	0637	6	1875	14	845								
				TD	150			267	345			58	000	1606	9	1937		855								
	19	1	0B.	.5	T158	2	- 0	255	349	572	27	61					14	864								

																											,
NCE	SHIP	1 4 717			CITURA	1 to	MAR		STAT	ON T		W		RIGINAT		DEPTH	M A DEPT		N. SEE	VA VE		WEA-	CLOUD			NODC TATION	
ID. NO.	CODE	LATITU	1/10	LON	GITUDE * 1.10	INDC						YEAR	CRUISE NO.		MBER	80110	0.6	1		GE PER S		DE ODE	TYPE A ALI	1		TATION TUMBER	
-	D	3007	_	160		+	10.	+	MO [			067	-	_		1	3 /011				-						
142	Pw	3002	N	14	)C6 W	,	123		_			1967		016	1-	457.	2 1	5 0	<u> </u>	1	1		6 2			0016	
								W'A	1	· ·	VIN D SPEED	BARC	)-	IR TEMP	VI.			ECIAL									
								COLOR	TRANS,	DIR.	FORCE	METE			WET CO	DEPTH	SOBSE	VATION	5								
									-	05	508	28	1 2	56	239 7	14											
		T									000	120		-					_		_						-
	MESSENGE TIME	CAST NO.	CARE		DEPTH	(m.)	1	*C	5	٠/	SIGN	A-T	SPECIFIC	VOLUME ALT-110?	DIN.	50	LOCITY	0 2 m	n.	PO 4-P		l L → P gr I		NO3-11	\$1 O4-5	рМ	
	HR 1 10	1													x 10	- 1	LOCHI			.,,	1 24.	91.1	μg - a1 '	13 - 01 ;	pg = 01		
			S1	D	000	0	2	230	35	9	24.	2.2	003	7082	000	0 1	5283										
	18	8	063		000			230		19Ū	24.						5283										
			ST		001			224	35		24.		003	6777	003		5283										
	18	B	082		001			224		115	24.			7.25	2		283										
			51		005			216	351		24.			7358 7431	007		5282										
	18	0	51 085		003			208 208	34	16	24	10	003	7831	011	Z 1	5280										
	18		085		003			834	34	780	25	14				3	5180										
	1,,,	0	51		005			832	34		251		002	9495	017		5180										
	18	8	OBS		007			771		61	25		001	, , , ,	011		5165										
	10		5.1		207			757	34		25		002	8778	045		5164										
	18	8	089		009					591						_											
	-		ST		010		1	675	34		25	34	002	6757	032	1 1	5140										
			ST		012	5	1	573	34	+4	25		002	6261	038	7 1	5110										
			ST		015	0	1	461	34.	26	25	50	002	5310	045	2 1	5077										
	18	8	OBS	5	015	U	1	461	34.	256	25	50				1	5077										
			ST	D	020	0	1	206	340		25		002	2191	057		4997										
	18	8	085		1050			198		12	25						4995										
			ST		025			000	34		26			9676	007		4956										
			51		030			950	34		26		001	7641	076		4923										
	18	8	UBS		030			946		168	26				0.00		4922										
			ST		040			784	34		26		001	5681	093		4876										
	18	Ħ	OBS		1040			776	34	005	26		20.1	3373	108		4873 4825										
			S1 S1		060			613	34		26 26			1820	120		4825 4792										
	18	0	0BS		060			485		337.	26		100	1020	120		4791										
	10	0	ST		070			436	34		27		0.0.1	0504	131		4787										
			51		080			395	34		27			9299	141		4788										
	18	8	088		1080			394		251	27		000		• •		4789										
		0	51		090			373	34		27		000	8461	150		4797										
			S 1		100			352	34		27			7704	158		4806										
	18	8	085		T101			350	34	424	27					1	4807										
			S1		110			332	34	45	27	44	000	7339	106	2 1	4814										
			S 1	r D	120	U	Ü	314	34	48	27	48	000	7001	173	4 1	4824										
			51	r D	130	O	Ü	296	34	5 Ü	27	51	000	0650	180	2 1	4833										
			51	D	140	U	Ū	279	34	53	27			6314	186		4843										
			S 1	ΓĎ	150		U	263	34		27		000	5986	192		4853										
	18	8	083	3	T150	7	J	262	34	559	2.7	59				1	4854										

REFERENCE			]			e	MAR	OEN	STAT	ION TI	M.F.			ORIGIN	ATOR'	·S	Т	DEPTH	MAX.		w.	A V E	- W	EA-	CLOUD		1	NODC	1
CTRY ID.	SHIP	LATITU	DE	LON	GITUDE	DRIFT	sou	ARE		GMT)		YEAR	CRUISE		TATIC		1	to	DEPTH	085	SERV	VATION!	T1	H ER	CODES			STATION	
CODE NO.	CODE		1/10		1/10	□ z	10"	17.	MO D	AY H	R,1/10		NO.		NUMB		В	MOTTOR	S'MPL"	DIR.	но	F PER	EA C	3DC	TYPE AMT			NUMBER	
311142	PW	3021	N	14	0105W		123	00	08	8	183	1967	N09	01	7		1	4352	15	05	1				8 2			0017	ĺ
								WAT	E R	٧	IND	BARG	0.	AIR TE	MP. °C	- VI	Ţ	NO.	SPF	CIAL									
								COLOR	TRANS.	DIR,	SPEED OR FORCE	AN ETE	ER I	ORY ULB	W E 8UL	T coi	D.d	OBS. DEPTHS	OBSERV										
										04	506	27	4 2	50	21	7 7	7	14											
		1	-				1				1	1	, , ,	. , ,		_		1			Ц.			Т				_	Τ.
	MESSENGI	CAST NO.	CAI		DEPTH	(m )	1	*c	5	٠/	SIGN	ta ⊷T	SPECIFIC	ALY-K	ME 07	₹ A	Μ.	V£F0		O2 ml/1		PO4-P vg - 01/I	TOTA		NO2-N	NO3-N	5104-5		Ĉ
	HR 1/10	1		,,												x 10	3	*****	, , , ,		_	pg + 01/1	DG -	4471	μg - 01/	μg + σ1/	PB - 01	<u>'</u>	1
	[																	ļ	1										
	,			TD	000			223	34		241		003	8851	2	000	0		279										
	18	3	ОВ		000			223		366	241								279										
				TD	001			215	341		241		003	8832	7	003	8		278										
	18	3	ОВ	_	001			215		867	241				_		_		278										
		_		TD	002		2	077	34		24	56	003	3392	5	007	5	15,	245										
	18	3	08	_	002					981					_														
			_	TD	003			961	34		24		003	3117	1	010	1		215										
	18	٥	OB	5 <b>T</b> D	004			806 803		541	25		003	975		016	D		170 170										
	18	2	08		007			729	34	622	25		002	. 7 / 2	4	010	0		151										
	18	,		_	007			722	34				00	7 0 0	D	024	0		150										
	18	3	OB	TD	007			741Q		792	25	21 280	002	2788	. 0	024	U	15	100										
	10	2		TD	010			633	34		25		003	2516	_	030	,	1.5	129										
				TD	012			535	34		25			2530		036			099										
	18	3	QB		014			432		241	25		002		1	0 3 0	,		067										
				TD	015			426	34		25		002	2478	3	043	2		065										
			S	TD	020	U	1	183	34	00	25	86	002	191	7	054	9	14	989										
	18	3	08	S	T020	1	1	179	33	999	25	87						14	988										
			S	TD	025	0	1	095	34	09	26	10	001	1980	3	065	3	14	967										
	18	3	08	S	029		1	006	34	120	26	28						14	943										
			S	TD	030		0	999	34	12	26	29	001	1805	4	074	8	14	941										
	18	3	08		T039			799		011	26								881										
				ID	040			787	34		26			1571	-	091			877										
				ID	050			617	34		26		00)	1344	8	106	2		827										
	18	3	ОВ		059			507		023	26								797										
				TD	060			500	34		26			191		118			796										
		_		ŦD	070			440	34		27		001	1040	2	130	1		789										
	18	3	08		1078			406		248	27						_		790										
				TD	080			403	34		27			924		139			792										
		2		TD	090			388	34		27		000	0841	3	148	1		804										
	18	3	ОВ	-	1097			375	34	430	27		0.00	701		156	0		812										
				TD	100		-	353	34		27 27			)781 )748		106	-		814 823										
				TD	120			333	34	_	27			713		171			832										
				TD	130			311	34		27			0675		178			840										
			_	TO	140			287	34		27			634		185			847										
	18	3	OB		T146			270		556	27						_		851										
	- 0	-	- 0	_		-			٠,									- '											

REFER	ENCE	SHIP					_ a	MARS		STATIO	IT NC	ME.			ORIGIN	ATOR'S		DEP	18   6	MAY. EPTH		WA			EA-	CLOUE			NOD	С
CODE	ID, NO,	CODE	LATITU	1/10		1 10 T	INOC	5QU			AY H	R,1.10	YEAR	CRUISE NO.		TATION IUMBE		BOTT	~l	OF MPL*S			A TIONS		DE	TYPE AN			NUMB	
31	1142	PW	3003	N,	14	ÛÛ4 W		123	UO	08 0	9 1	84	1967	NO9	01	8		479	55	15	03	1				8 2			00	1.8
									WAT		_	IND	BAR		AIR TE			l NO	5. 1	SPEC		٦' -							•	
									COLOR		DIR.	SPEED	MET	ER	DRY	WET		000	5. 00		ATIONS									
									CODE	'm'		FORCE	{mb	_	INT8	BULB	_	+	_			-								
											05	508	24	7 2	50	221	8 7	14	4			_								_
		MESSENG		CAF	00	DEPTH	_,		°C	5 .		1	4 A - T	SPECIFI	c votu	ME ,	₹ ∆ D	.	SOUNE		02 ml/	,   ,	0 4 - P	TOTAL	P	NO <sub>2</sub> -N	NO3-	N SIO4-	-Sı	рΗ
		HR 1 1		TYE	PE	Derini	1111		-	′	••	3107	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	ANON	ALY_I1	07	x 10 <sup>3</sup>		VELOCI	TY	0 2	. P	g + a1, l	yg + 0	1/1	ug + a1 i	yg - at	. I   µg + a	6-1	,,,,
							_																		$\neg$					
				5	TD	000	U	2	284	354	0	24	3 ú	00:	633	U I	0000	) :	1530	u i				1			•	,		
		18	4	ОВ		000			284	353		24					- 0		1530											
					TO	001			274	353		24		001	3612	4 (	0036		1529											
		18	4	08		001			274	353		24							1529											
					TD	002			140	352		24		00	3346	4	0071		1526											
					TD	003		- 2	023	351	1	24			3163		0104		1523											
		18	4	08	S	003	0			351	11																			
				S	T D	005	0	1	839	347	0	24	97	00	3014	7	016	ŝ	1518	31										
		18	4	ОВ	S	005			839	347		24							1518											
					ŦΩ	007			705	345		25		00.	2831	6	0438		1514											
		1.8	4	08		007			705	345		25							1514											
					TD	010			688	346		25		00	2733	3	0308		1514											
		18	4	DВ		010			688	346		25							1514											
					TD	014			656	345			31		2713		0376		1513											
					TD	015			574	344		2.5		00.	2621	1	0443		1511											
		1.8	4	ОВ		015			565	344		2.5		200			o = r		151											
					TD	020			244	340		25		00.	2252	9	0565		1500											
		1.8	34	09	S TD	T020			217	346		25 26		0.0	1998	0	067		1496											
					TD.	030			970	340		26			1784		0766		149											
		1.8	17.	08		030			959	340			33	50.	. 104		0 / 00		149											
		1.0	,		TD	040			778	340			55	0.0	1559	3	0933		148											
		18	14	08		1040			762	340			57		,	_	- , ).		1486											
		10			TD	050			615	340			78	00	1340	7	1078		148											
					TD	060			496	340			94		1189		1404		1479											
		18	14	ОВ		061			487	340			95		/	-			1479											
		10			TD	070			438	341			09	0.0	1045	3	1310		1478											
					TD	080			397	342			22		0932		141		1478											
		18	34	28		T080			1395	342			22				-		1478											
		-			TD	090			377	343			31	00	3850	7	150	4	147	99										
					TU	100		Ü	358	344	1		38	000	784	7	1586	6	1480	38										
		1.8	34	ОВ		101		0	355	344	-17	27	30						1480	9										
					TU	110	0	0	1339	344	44	27	43		)74c		166		148	17										
				S	TD	120	0	0	1320	340	+7	2.7	47	00	J709		173		148											
					TO	130			301	345			51		0672		180		148											
					TD	140			1282	345			55		0634		186		1484											
				5	TD	150	U		262	345			59	00	0594	5	193	-	148											
		18	3.4	0.8	5	T151	В	0	259	345	666	27	60						148	55										

ID. NO.	SHIP	LATITU	DE 1/10	LONGITUDE 1/10	MARSE SOUA			ON TU SMT)	,	EAR	CRL		TATO MUM	ION		DEPTH TO OTTOM	DEPT OF S'MPI	H 08	WAVE SIT AVR32		WEA- THER CODE	CLOUD			NODC STATION NUMBER	Ì
142	PW	3005	N	13459 W	122	09				0/ 7	,				-				HGT PER	SEA	-	TIPE AM	T .		NOWBER	
					1	WA			ND I	967	1/3	09 01	_		14	480	1	5 06	12		1	7 2		İ	0019	
						OLOR	-	т-т	SPEED	8AR MET		DRY	_		VIS	NO, OBS.	S.F	ECIAL								
						ODE	Im I	DIR.	FORCE	(mb		BULB		ET C	ODE	DEPTHS	OBSER	VATIONS								
								03	SU7	24	0	256	,	28	7	14										
i	MESSENGR	CAST	CARR		T		1						1		_	1	L		<u> </u>				_			
	TIME 0	ND.	CARD	DEPTH Imi	1	"C	5	۷.	SIGMA	-1		OMALY-E		∑ ∠ DYN	. M.		JND	O 2 m1/	PO4-	PI	OTAL-P	NO2-N	ND3-N	SID4-S	. i	5
İ	HR 1/10			+	+		-						_	X	10]	VELC	DCITY		ng - 0	171	µg - at/1	nd = as\()	μg - at/1	µg - a1/		C
																1										+
	195		ST0		22		354		242		0.0	3660	0	00	00	15	304		1	,				1	1	ł
	190	,	STI	0000	22		354		242							15	304									
	195		OBS	0010	22	-	354	_	243		0.0	3641	3	00	37	15	300									
			STI		22 22		354		243								303									
			STE		22		353 353		242			3657	_	00	_		303									
	195		OBS	0030	22		353		244		01	3532	8	01	09		290									
			STE		19		350		244		20	3096	,	0.1	-, -		290									
	195		085	0050	19		350		248		0 (	12040	-	01	15		219									
			STE	0075	18		349		252		0.0	12799	4	0 _ 4	(- C)		219 179									
	195		035	0075	18	09	349		252			, , , , ,	,	02.	+ 7		179									
			STO	0100	17	58	349		253		0.0	2638	4	03	1 7	15										
	195		085	0130			349	81						0.2		• ).	107									
			STD		17		349	3	2540		0.0	2565	6	038	3.2	15	157									
	100		STO		16		347	7	2546	5		2573		044		15										
	195		085	0152	16		347		2546	)						15										
	195		STD		12		340		2583		0.0	2227	Ú	000	66	150	009									
	199		035 STD	T0203	12		340		2584							150	003									
			SID		11.		340		260			2052		00.	73	149	78									
	195		085	0306	10.		340		2621		00	1875	J	07:	71	149										
			STD		078		340		2624							149	945									
	195		OBS	T0410	076		340		2654		00	1571	1	094	4	148										
			STD		06		340		2656				_			148										
			STD		049		340		2678			1338		108		148										
	195		OBS	0512	048		340		2695		00	11799	)	1 4 1	. 5	147										
			STD		043		3414		2709		00	10516		1 4 0		147										
			SID		039		3425		2721			09334		132		147										
	195		OBS	10816	039		3426		2723		00	07334	•	142	. 6	147										
			STD	0900	037	75	343		2730		00	08558	,	151	6	147										
			SID	1000	035	53	344	l	2739			07789		159		148										
	195		085	T1017	035	U	3442	20	2740					1 - /	,	148										
			SID	1100	033	14	3444	4	2743		00	07392	2	167	3	148										
			STD	1200	031		3447	7	2747			07034		174		148										
			STD	1300	029		3450		2751		00	00676		161		148										
			STD	1400	028		3453		2755		00	06333	}	187	9	148										
	195		STD OBS	1500 T1523	026		3456		2759		0.0	05997		194	0	148										
	4.7		003	11943	026	1	3456	4	2759							148	56									

SHIP	LATITU	DE t	ONGITUD	DRIFT	MAR	SDEN		ION T	I M E	YEAP	CRUIS	ORIGINA E ST	TOR'S ATION	- 1	DEPTH TO	M A X DEPTH OF	085	WAVE SERVATIONS		WEA- THER	CODES			NODE
CODE		1/10		/10 2	10*		MO I	DAY	IP 1, 10		NO.		JMBER	8	OTTOM	S'MPL"	D12	HGT PER S	ΕA	CODE	TYPE A ULT			NUVBE9
42 PW	3515	5N ]	14005		123	_			187	1967	NO	9 020		-	+663	44	0.8	2			7 3			002
.,						N/A			VIND	BARC	1	AIR TEM		+	NO.		CIAL							
						COLOR	TRANS	Dis	SPEED	METE	E R	DRY	WET	CODE	OBS.	OBSERV								
						CODE	(10)		FORC	E (mps		BULB	BULB	-	JEFINS									
								10	509	25	1	244	228	7	20									
MESSENG	CAST	CAPD	T		Π,						SPEC IF	HC VOLUM	E 2	A. D.	SOL		Op mili	PO4-P	10	TA L=P	NO2-N	NO3-N		
HR 1, 10	or NO.	TYPE	DEP	TH (m)	1	*C	,	•/	210	M A -T	ANO	AFALY-X10	, Di	103	VELC	CITY	02 11111	µg + a+ 1	× 9	- 01	μg - σ1 i	-9 - at 1	µg - 01	1
7.18 -7.19					-																			
1		STO	0	000	1 2	290	3.5	36	24	• 26	00	3673	3 00	00	15	301								
18	17	OBS		000		290	35	364	24	+26					15	301								
		STO	) o	010	2	278	35	36	24	+29	0.0	3645	7 00	37		300								
18	17	OB5		010		2278		362		¥29						300								
		ST		Ŭ 2 O	2	2152		31	24	+61	00	33490	) 0(	72	15	269								
18	3.7	OBS	-	029		204.1		205 17	2.1	. on	0.0	31665	. 0	04	1.6	239								
18	. 7	ST0		030 049		2041		736		480 490	00	2100;	, 0.	. 0 4		191								
10	, ,	ST(		050		1869		73		+90 +91	0.0	30668	3 0.	166		190								
18	17	085		074		1743		585	_	511	5.5					155								
10		STI		075		1740		58		512	0.0	2680	9 0	41		155								
18	17	035	٥	099		1661	34	539	2 :	527						134								
		ST		100		1659	34	54		527		27374		311		134								
		ST		125		1601		46		535		2669		379		119								
		ST		150		1508		39		550	00	2530	5 0	+44		093								
18	37	OBS		150		1508		391		550	0.0	2220				093 999								
1.0		STI		200		1211		.03 .021		583	00	2220	9 0:	962		999								
18	5 /	085 51		202		1072		021		585 612	0.0	1955	1 0	567		959								
		5 T		300		0950		.u.r		634		11754		760		923								
18	3.7	085		301		3948		V81		634						922								
10	, ,	ST		400		0752		ul		659	0.0	1520	9 0	923		863								
18	3 7	JBS		401			34	010	1															
		ST	D 0	500	1	3597	34	03	2	681		1308		065		819								
		51		600		0486		05		696	0.0	1164	6 1	188		790								
18	3 7	085		604		0483		054		697	0.0		, 1	300		790								
		ST		700		0437 0399		25		709 721		)1045 )0937		299 398		788								
18	3.7	ST OBS		1800		0399		248		721	00	,0,21	, I	- 70		790								
10	, ,	51		1900		0376		34		731	0.0	00849	5 1	487		798								
		ST		300		0355		42		739		0773		569		807								
18	37	085		006		0354		4422		739					14	808								
		ST		100		0333	34	45	_	744		0733	-	644		815								
		ST		200		0312		+48		748		0694		715		823								
		ST		300		0293		-51		752		0657		783		1832								
		ST		.400		0276		154		756		0622		<b>647</b> 908		842								
1.7	0.7	ST		504		0262 0261		+57 +568		760 760	O C	00590	1 1	7 U 8		853								
1.6	37	085 ST		750		0238		+260 +59		763	0.0	00557	8 2	U 5 1		885								
2.	14	085	-	940		0220		. 60 f		766	,	,		- *		910								
۷ .		51		000		0212		+61		767	0.0	00523	1 2	186		917								
2 :	1 4	085		355		0177		+648		773						963								
		ST		2500		0172		+65		773	0.0	00462	6 2	433		985								
2	14	OBS		2870		0160		+664		775						0044								
		ST		3000		0157		•67		776	0 (	00443	7 2	059		065								
2:	14	OBS		3364		0150		+67		777	~ /	2060	2 3	1		126								
	14	ST		+000		0152		+69		778 779	Ų (	00450	U 3	106		5239 5294								
		055	. 4	+309		0153	34	4691	5 2	114					1	ノムプサ								

FERENCE	SHI		LATITU	DE LO	MOGITUDE NOTIFIED IN THE PROPERTY OF THE PROPE	MARS		STATIO	N TIM		EAR	ORIGINA CRUISE S	ATOR'S	$\vdash$	DEPTH TO	DEPTI	H 08	WAVE SERVATI		WEA-	CLOUD		2.	NODC
DE NO.	cot	DE	•	1/10	1/10 03	10"	1.	MO DA	Y HR,	1/10			UMBE		BOTTOM	S'MPL		HGT PE	R SEA	CODE	TYPE AW	7	N	UMBER
31114	2 PI	w	3006		3958 W	122		08 1			967	N09 02			4755	15	08	11			7 7			0021
							COLOR		WII	SPEED	BARC		AP, °C	VIS	NO. OBS.		ECIAL VATIONS							
							CODE	(m)	DIR.	FORCE	(mbs		BULB	-	DEFINS									
									02	509	25	4 222	21		14		r——							Т
	MESS	ENGR	CAST NO.	CARD	DEPTH (m)	1	*c	۶.	4.	SIGMA	7-	SPECIFIC VOLUM	M.E	E A D	SO VEL	OCITY	O2 ml/	PO.		TOTAL-P	NO2-N µg - al l	NO3-N pg - at 1	51 O4-51 µg = a1 1	рн
	HR	1/10	140.	1176		<del> </del>							+	x 10 <sup>3</sup>	+			-				-	-	-
	1			STD	0000	2	229	349	5	241	2 I	003805	9 1	0000	15	281	1	ı	1		l	l	1	1
		188		085	0000		229	349		241					15	281								
		101,		STD	0010		219	349		241		003780	6	0038	15	280								
		188		OBS	0010		219	349	54	241	5					280								
				STD	0020		217	351	5	243	0	003638	5	0075		284								
		188		085	0029	2	216	351	67	243						285								
				STD	0030	2	189	351	3	243	7	003580	7	0111		278								
		188		OBS	0049		826	346		249						177								
				STD	0050		822	346		250		002983	9	0177		176								
		188		085	0074		756	346		251						160								
				STD	0075		756	346		251		002865	9	0 < 50		160								
		188		085	0098		745	347		252		003745	4)	0.430		162								
				STD	0100		740 657	347 347		252 254		002765		0320 0387		140								
				S <b>T</b> D STD	0125 0150		546	348		257		002293		0447		5111								
		188	1	085	0150		546	348		257		002273		J 1		5111								
		198	5	085 STD	0200		231	340		258		002250	6	0561		006								
		188		085	T0202		221	340		258		302270	1			5003								
		100		STD			079	340		260		001984	9	0667		+961								
				STD			950	340		263		001758		0761		+923								
		188	ı	085	0302		945	340	75	263					14	4921								
		100	,	STD			745	340		265		001518	3	0924	14	4861								
		188	1	085	0401	0	743	340	00	265	9				14	4860								
		_		STD	0500	C	592	340	1	268	0	001317	4	1066	14	4817								
				STD			482	340		269		001162	0	1190		+789								
		188	3	OBS	0606		477	340		269						4788								
				5 <b>T</b> D			433	341		271		001032		1300		¥786								
				STD			396	342		272		000931	1	1398		4789								
		188	3	085	10809		393	342		272		00.341.	_	1 4 6 -		4789								
				STO			375	343		273		000841		1487		4798								
				STO			355	344		273		000773	9.8	156		4807								
		188	3	085	11009		353	344		274		000733		167		4808								
				STD			335	344		274		000733		1641		4816 4825								
				STE			317	344		274		000698		1714		4822 4834								
				STO			298	345		275		000662		184		4834 4844								
				STO			280	345		275		000627		1908		4844 4853								
		100	,	STO			1263	345	668	276		000592	. 1	1700		4855								
		188	5	085	T1512		261	545	000	216	<b>)</b> U					ر ر ن .								

TABLE V. Observed and interpolated oceanographic data for stations taken by USCGC PONT-CHARTRAIN at Ocean Station NOVEMBER, 3–24 September 1967, prepared from NODC Listing No. 31–1163 PW.

CODE

RENC	-	SHIP	LATITU	DE	101	NGITUDE 1	MAR	SDEN	STAT	ION TIM		EAR		ORIGIN			DEPTH	DEFIN	08	WAVE ERVATION	vs.	WEA-	CLOUD		, i	NODC
II.		CODE		1/10		1.10	10*	1.		DAY HR.		214	CRUIS NO.		TATIO		80110	u S'MPL'		HGT PER		CODE	TYFE JAM'	1		UMBER
2.1	63	PW	3008		1 1	9575W	122	+	_	03 1		967	NO	00	1		44.81		+	1		0.1				0001
l <sub>T</sub> T	0 3	PW	3000	IN	13	9575W	122					70/					448(	15	00	0 3		01	6 5			0001
								WA	_	W11	SPEED	BAR	0-	AIR TE		VIS	NO.		CIAL							
								COLOR	TRANS.	DIR.	OR FOFCE	MET (mb		DRY BULB	W E		DEPTH	OBSERV	ATIONS							
									_		505	17	-	250	2 7	19 8	14	-								
			,			_			ļ.,	100		1 1		-			<del></del>									1
	1	MESSENGE TIME a		CA	PD	DEPTH (m)	Т.	*C	,	•/	SIGMA	4 _ T	SPECIF	c voru	M.E	E A D	\$0	DNU	Q2 m1/	PO 4-		TA L-P	NO <sub>2</sub> -N	NO3-N	S1 O4-S1	ρН
	- 4,	HR 1/10	NO.	Ti	PE					.,			AND	AALY~X1	.	x 10 <sup>3</sup>	. AE	LOCITY		νg = α1	/1 >	g = a1/f	µg - at 1	µg − at/l	yg - at, l	
																			-							
			' '	٩	TD.	0000	2	363	35	08	238	3	0.0	+082	4	0000	1	5316		1						
		190	)	0 E		0000	2	363	35	077	238							5316								
				9	TD	0010	- 2	358	35	11	238		00	+050	7	0041	1	5317								
		190	)	08	15	0010	2	358	35	107	238	7					1	5317								
				5	TD	0020	2	349	35	20	239	6	00	3962	3	0081	1	5317								
				9	TD	0030	2	340	35	21	240	0	00	3933	9	0120	1	5317								
		190	)	0.8	35	0030	2	340	35	210	240	0					1	5317								
				5	STD	0050	2	023	34	95	246	8	0.0	3289	4	0192	1	5235								
		190	)	O E	3.5	0050	2	023	34	947	246	8					1	5235								
		190	)	ΟE	35	0074	1	844	34	838	250	ь					1	5188								
				5	STD	0075	1	839	34	83	250	6	0.0	2930	9	0270	1	5186								
		190	)	06	15	0099	1	728	34	698	252	3					1	5156								
				5	STD	0100	1	723	34	69	252	4	0.0	<u> 769</u>	9	0341	. 1	5155								
				9	STD	0125	1	607	34	50	253	7	00	2656	3	0409	1	5122								
				5	STD.	0150		486	34		255		0.0	2528	9	0474		5086								
		190	)	O E		0151		481		323	255							5084								
					5 T D	0200		.225	34		258		00	2239	5	0593		5004								
		190	)	O E		T0203		.212		030	258							5000								
					STD	0250		.082	34		260			1987		0699		4962								
					STD	0300		962	34		263		0.0	1782	1	0793		4927								
		193	)	0.5		0303		955		070	263							4925								
					TD	0400		774	34		265		0.0	1553	5	0960		4872								
		190	)	OE		0402		771		006	265							4871								
					TC	0500		611	34		267			1334		1104		4824								
					TD	0600		1494	34		269		0.0	1169	1	1230		4794								
		190	)	0.6	_	0605		489		063	269		0.0	104		12/		4793								
					STD	0700		441	34		271			1041		1340		4790								
		100			STD	0800		401		25	272		0.0	0936	9	1439		4791								
		190	J	OE		10810		398		259	272		0.0	001.0	E	153		4791								
					STD	0900		376	_	34	273			0849		1528		4798								
		190	)	O E	STD	1000 T1004		353		421	273 2 <b>7</b> 4		0.0	0771	)	160		4806 4806								
		190	,		STD	11004		331		48	274		00	0709	1	168		4814								
					STD	1200		311		53	275			0656		1752		4823								
					STD	1300		292	_	56	275			0618		181		4832								
					STD	1400		275		57	275			0597		1876		4842								
					STD	1500		259		57	276			0584	-	193	_	4852								
					ノ・レ	1 200	-	1627		21	210	, ~	- 0	~ ~ ~ ~		4/2		.076								

CTRY CODE	ID.	SHIP	LATITUDE		LONG	HTUDE	ORIFT	MAR SQU	ARE	(0	ON TIN		YEAR	CRUISE		NOIT	-	DEPTH TO BOTTOM	MAX, DEPTH OF	085	WAVE ERVATIONS	WEA- THER CDDE	CODES		1 5	NODC TATION
300	ΝО.		1	/10		. 1/1	0 =	10"	1.	MD D	AY HR	1/10		NO.	NU	M BER	_	BUILOW	S'MPL"	DIR.	HGT PER SI	A	TYPE A M	ī		4 II W B E #
3 1 1	163	PW	30085	N	139	55 V	v	122	09	09 0	4 1	97 1	967	NO 9	002			4572	15	34	0 4	01	6 3		1	000
									WAT	ER	WI	ND	BARO	AIF	TEMP.	,c		NO.		CIAL						
									COLOR	TRANS.	DIR.	SPEED	METE	R DR		VET	CODE	OBS. DEPTHS	OBSERV							
									CODE	lm)		FORCE	lmbs	$\rightarrow$		ULB	1									
											00	500	16	9   25	0 4	233	8	14								
		MESSENGR TIME HR 1/10	or NO.	CARD		DEPTH	(m.)	т	tc	5 '	٧	SIGM	A-T	SPECIFIC V		DY	△ D (N. M. ( 10 <sup>3</sup>	SOL		02 ml/(	PO4-P pg = 61/1	101AL-P µg - 01/1	NO2=N ug = al:'l	NO3=N µg - al.'l	\$1 D4→2	p
				ST		000			362	350		237		0041	381	0	000		315							
		19.	7	OBS		000			362	349		237							315							
			_	ST		00			356	350		237		0041	201	0	041		315							
		19	7	085		00			356	350		237		0070	1.5.5	_	۰		315							
				ST		00			267	350		241		0038			081		296							
		10	,	5 T		001		2	179	351		243	5 7	0035	787	0	118	15	275							
		19	1	085		00				350			_			_										
		1.0	_	51		009		_	006	349	_	246		0032	769	0	186		230							
		19	/	085		00			006	349		246		0000			a		230							
		10	7	ST		00.			795	346		250		0029	460	U	264		172							
		19	1	085 51		00.			795	346		250		0030	212	_	30.		172							
		19	7	085		010		1	741	346		25]	. 8	0028	243	U	336	15	160							
		19	/			017		1	/ - 3	346 345		250		00.17	220	0	406	16								
				ST		019			663 559	344		253 254		0027			406 472		140 110							
		19	7	085		019			550	344		254		0023	700	U	712		108							
		1 7	1	ST		020			269	340		257		0022	857	0	594		020							
		19	7	085		T020			245	340		257		0022	0 ) 4	0	J 7 4		012							
		1 7	,	5 <b>T</b>		025			107	340		260		0020	175	0	702		971							
				ST		030			975	340		262		0017			797		932							
		19	7	085		030			963	340		263		0011	707	0	171		928							
		19	1	5 <b>T</b>		040			782	340		265		0015	462	0	965		92 <b>0</b> 875							
		19	7	085		T040			778	340		265		0015	0 ) 2	•	,0)		874							
		1.7	*	ST		050			611	340		267		0013	37.7	1	110		824							
				ST		050			491	340		269		0013			235		793							
		19	7	0BS		060			484	340		269		0011	054	1	235		791							
		14	1	5T		070			440	341	_	271		0010	2.20	1	345		791 789							
		19	<b>→</b>	ST		080			401 400	342		272		0009	220	1	443		791 791							
		19	1	085 51		090			377	343		273		0008	422	1	531		791 799							
				ST		100			354	344		273		0000		_	613		806							
		19	7	0BS		1100			353	344		273		0007	001	1	913		807							
		19	1	51		110			333	344		274		0007	358	1.	688		815							
				ST		120			313	344		274		0006			760		823							
				ST		130			295	345		275		0006			828		833							
				51		140			277	345		275		0006			892		832 842							
				5 T		150			262	345		276		0005			953		853							
		10	7							-				0005	073	1	/ ) )		_							
		19	1	OBS		1150	14	U	26 l	345	169	276	U					14	853							

REFE	RENCE	_ SH	H.P.					E E	MARS	DEN	STATIC	N TIM				ORIGIN	ATOR"	5		DEPTH	MAX. DEPTH	0	WAVE		WEA-	CLOUI			NODC
TRY	iD.	co		LATITU		LOI	GITUDE	PRIFF	200			MT?		YEAR	CRUIS		TATIO			TO BOTTOM	OF		ERVA TIO		THER	CODE			MOITATE REEMU
	-	+			1/10		971	· —	10*	1 1		Y HR.			NO.	-	NUMB	1858			S'MPL'S		HGT PEP	SEA	+	TYPE AA			
31	116	3 P	w	3007	N	13	958 v	V	122	+	04 0			967	1					4755	15	00	0 3		01	612	: 1		0003
										W A		WI		BARG	)- ⊢	AIR TE	_	— I v	/15	NO.	SPEC	IAL							
										COLOR	TRANS,	DIR.	OR	M ETE		DRY BULB	W E	T (C)	O O I	DEPTHS	OBSERVA	TIONS							
										-	_	SOO			267	-	250 8		14			-							
				,					, .		-	00	300	19	3 .	201	147			1			,			1			1
		MESSENGE CAST		CAST	CAPD TYPE		DEPTH (m)		T	°C	5 */	/ I	SIGM	MA-T	SPECIFIC VOLU		Ž ∆ DYN.	D M	sou	UND OCHTY O2 ml/		PO4-		101AL-P				pH	
			HR 1, 10 NO.												ANU	MALT-A		x 10 <sup>3</sup>	03			VELO	yg - 01/I	4	yg - a1/1	µg + a!	l yg = at	hā - āt	
																								Т					
		ı			STD		0000		2	424	350	1	2359		004		3	0000	00	15	330		1						
		194			OBS		0000		2424		35005		2359					0-00			330								
						T D	00	10	2	359	349	9	23	7 7	0.0	4140	17	004	42	15	316								
			194	•	085 0		00	10	2	359	349	34986 2		7 7						15	316								
						TΟ	002			311	350		239			3992		008			30⊳								
						TΟ	00			23C	350		24		00	1757	7	012	22		287								
			194	+	08		00			23∪	350		24								287								
						T D	009			972	349	-	24		00	3199	1	019	91		221								
			194	+	ОB		00			972	348		24					_			221								
						TD	00			815	348		25.		00	2882	7	0 < 6	67		179								
			194	+	OB		00			815	348		25.								179								
						ΤĐ	01		1	716	346		252	2.3	00	2780	1	03	38	15	152								
			194	•	OB		010				346	-																	
						TD	01.			607	344		25			2663		04(			122								
						TD	01			489	343		25		00	2535	1	04	71		087								
			194	+	OВ	_	01			479	343		259				_				084								
						T D	020			217	340		25		00	2224	+7	059	90		001								
			194	+	0B	_	T020			190	340		258					٠.,	۰.		993								
						TD.	02!			076	340		26			1969		069			960								
			194		0B	TD.	030			961	340		26: 26:		00	1779	, ,	07	84		927 922								
			1 44	•		o TD	041			777	340		26		0.0	1557		099	5.6		873								
			194		08		T040		_	765	340		26		00	+ 1 ) (	7	0 9 3	90		870								
			176	•		Z D	05			618	340		26		0.0	1351	3	110	۱۵		827								
						TD.	060			502	340	-	26			1186		12.			797								
			194		08		06			490	340		26		00	. 100	-	1-	_ 0		794								
				•		J TD	071			444	341		270		0.0	1052	4	13	4.0		791								
						TD	081			402	342		27			0945		144			791								
			194	4	08		08			397	342		27					-			791								
			-			T D	091			377	343		27		00	0858	3 1	15	30		798								
						TD.	10			355	344		27			0781		16			807								
			194	•	08	5	10.		0	351	344	20	27							14	809								
					S	TD	1.1	00	0	335	344	4	27	43	00	0741	1	16	88	14:	815								
					S	TD	12	00	0	316	344	7	27	47	00	u705	3	17	60	14	824								
					S	ΤD	13	ΟÚ	0	299	345	0	27	51	00	0671	4	18	29	14:	834								
					S	TD	14	ÚŲ	0	283	345	3	27	55	00	0637	6	18	95	14	845								
					S	TD	15	ΟU	0	269	345	6	27	58	0.0	0606	,4	19	57	14	856								
			194	4	QB	S	T15.	28	0	265	345	64	27	59						14	859								

STD   0000   2416   3502   2363   0042699   0000   15528   15328   1	NOOC
Color   No.   Color   No.   Color   No.   Color   No.   No	NUMBER
Note   Company   Note   Company   Note   N	10004
STD   ORD	
194	
194	12=10 Hq 1.40 =
194	
STO   O010   2378   3507   2378   O041370   O042   I5521	
194	
STD   0020   2559   3503   2409   0038374   0082   15293	
STD   O030   2132   3495   2439   O035590   O119   15261     STD   O050   2132   54952   2439   O035697   O119   15261     STD   O050   1852   3465   2491   O030697   O185   15184     194   OBS   O051   1842   34658   2493   I5361     STT   O075   1746   3465   2516   O28438   O259   I5157     194   OBS   O076   1742   34650   2516   I5360     STD   O100   1647   3464   2538   O026352   U329   U329   U329     194   OBS   O103   3464   2538   O026352   U329   U329   U329     STD   O125   1545   3447   2548   O025442   O395   U329   U329     194   OBS   O150   U341   U3428   2556   O024725   O459   U349   U349     STD   O200   1219   3404   2583   O022284   O576   U349   U349   U349   U349     STD   O250   U371   U3404   U349	
194	
STD   0050	
194	
STF   0075	
194	
STD   O100	
194	
STD   0125   1545   3447   2548   0025442   0395   15114     STD   0150   1441   3428   2556   0024725   0459   15081     194   OBS   0154   1424   54251   2558   0022284   0576   15002     194   OBS   T0207   1192   34020   2586   01074   0682   14958     STD   0250   1071   3404   2610   001974   0682   14958     STD   0300   0952   3407   2632   0017681   0775   14923     194   OBS   0308   0935   3407   2635   017681   0775   14923     194   OBS   T0411   0771   34006   2656   014872     STD   0500   0624   3402   2677   0013496   1088   14830     STD   0500   0624   3402   2677   0013496   1088   14830     STD   0500   0503   3404   2695   011941   1216   14797     194   OBS   0614   0490   34044   2695   011941   1216   14797     194   OBS   0614   0490   34044   2695   14793     STD   0700   0450   3414   2707   0010669   1329   14795     STD   0800   0411   3425   2720   0009485   1429   14795     STD   0800   0381   3433   2729   0008627   1520   14800     STD   0800   0381   3433   2729   0008627   1520   14800     STD   1000   0355   3441   2738   0007812   1602   14807     STD   1000   0352   3447   2745   0007177   1677   14815     STD   1200   0311   3451   2751   0006708   1747   14823     STD   1300   0293   3454   2755   0006343   1812   14832     STD   1400   0278   3456   2759   0006987   1934   14854	
STO   0150   1441   3428   2556   0024725   0459   15081     194   OBS   0154   1424   34251   2558   15065     194   OBS   T0207   1192   3404   2583   0022284   0576   15002     194   OBS   T0207   1192   3404   2586   14993     STD   0250   1071   3404   2610   0019747   0682   14958     STD   0300   0952   3407   2632   0017681   0775   14925     194   OBS   0308   0935   34070   2635   14918     STD   0400   0788   3401   2654   0015740   0942   14877     194   OBS   T0411   0771   34006   2656   14872     STD   0500   0624   3402   2677   0013496   1088   14830     STD   0600   0503   3404   2695   14793     STD   0700   0450   3414   2707   0010669   1329   14793     STD   O88   0814   0406   34260   2721   14795     STD   O900   0381   3433   2729   0008627   1520   14800     STD   0600   0355   3441   2738   0007812   1602   14807     194   OBS   0117   0351   34419   2740   0006708   1747   14815     STD   1200   0311   3451   2751   0006708   1747   14823     STD   1200   0311   3451   2755   0006543   1812   14823     STD   1400   0278   3456   2759   0006987   1934   14854     STD   1500   0265   3456   2759   0006987   1934   14854	
194	
STD   0200   1219   3404   2583   0022284   0576   15002     194   OBS   T0207   1192   34020   2586   14993     STD   0250   1071   3404   2610   0019747   0682   14958     STD   0300   0952   3407   2632   0017681   0775   14923     194   OBS   0308   0935   3407   2635   0017681   0775   14923     194   OBS   0404   0788   3401   2654   0015740   0942   14877     194   OBS   T0411   0771   34006   2656   14872     STD   0500   0624   3402   2677   0013496   1088   14830     STD   0500   0503   3404   2693   0011941   1216   14797     194   OBS   0614   0490   34044   2695   3406   2677     STD   0700   0450   3414   2707   0010669   1529   14793     STD   0700   0450   3414   2707   0010669   1529   14795     STD   088   0814   0406   34260   2721   14795     STD   088   0814   0406   34260   2721     STD   0900   0381   3433   2729   0008627   1520   14800     STD   1000   0355   3441   2738   0007812   1602   14807     STD   1000   0351   34419   2740   14808     STD   1200   0311   3451   2751   0006708   1747   14815     STD   1300   0293   3454   2755   0006343   1812   14832     STD   1400   0278   3456   2759   0006987   1934   14845     STD   1400   0278   3456   2759   0006987   1934   14845     STD   1400   0278   3456   2759   0006987   1934   14845	
194	
STD   0250   1071   3404   2610   0019747   0682   14958   1	
STD	
194	
STP	
194 OBS T0411 0771 34006 2656 14872  STD 0500 0624 5402 2677 0013496 1088 14830  STD 0600 0503 3404 2695 0614 14977  194 OBS 0614 0490 34044 2695 14793  STD 0700 0450 3414 2707 0010669 1329 14793  STD 0800 0411 5425 2720 0009485 1429 14795  STD 0900 081 3425 2720 0009485 1429 14795  STD 0900 0381 3433 2729 0008627 1520 14800  STD 1000 0555 5441 2738 0007812 1602 14800  STD 1100 0555 5441 2745 0007177 1677 14815  STD 1200 0311 3451 2751 0006708 1747 14823  STD 1300 0295 3456 2758 0006082 1874 14843  STD 1400 0278 3456 2759 0006987 1934 14854	
STD	
STD   0600   0503   3404   2693   0011941   1216   14797   14793   1	
194 OBS 0614 0490 34044 2695 14793 STD 0700 0450 34114 2707 0010669 1329 14793 STD 0800 0411 3425 2720 0009485 1429 14795  194 OBS 0814 0406 34200 2721 14795 STD 0900 0381 3433 2729 0008627 1520 14800 STD 1000 0355 3441 2738 0007812 1602 14807  194 OBS 1017 0351 34419 2740 14808 STD 1100 0352 3447 2745 0007177 1677 14815 STD 1200 0311 3451 2751 0006708 1747 14823 STD 1300 0293 3454 2755 0006534 1812 14832 STD 1400 0278 3456 2758 0006082 1874 14843 STD 1500 0265 3456 2759 0006987 1934 14854	
STD	
STE   0800   0411   3425   2720   0009485   1429   14795	
194 OBS 0814 0406 34260 2721 14795 STD 0900 0381 3433 2729 0008627 1520 14800 STD 1000 0355 3441 2738 0007812 1602 14807  194 OBS 1017 0351 34419 2740 14808 STD 1100 0332 3447 2745 0007177 1677 14818 STD 1200 0311 3451 2751 0006708 1747 14823 STD 1300 0293 3454 2755 0006543 1812 14832 STD 1400 0278 3456 2758 0006982 1874 14843 STD 1500 0265 3456 2759 0005987 1934 14854	
STD 0900 0381 3433 2729 0008627 1520 14800 STD 1000 0355 5441 2738 0007812 1602 14807 194 OBS 1017 0351 34419 2740 14808 STD 1100 0352 3447 2745 0007177 1677 14815 STD 1200 0511 3451 2751 0006708 1747 14823 STD 1300 0293 3454 2755 0006543 1812 14832 STD 1400 0278 3456 2758 0006987 1874 14843 STD 1500 0265 3456 2759 0005987 1934 14854	
STD   1000   0355   3441   2738   0007812   1602   14800   14808   1017   0351   34419   2740   14808   1480	
194 OBS 1017 0351 34419 2740 14808 STD 1100 0332 3447 2745 0007177 1677 14815 STD 1200 0311 3451 2751 0006708 1747 14823 STD 1300 0293 3454 2755 00065343 1812 14832 STD 1400 0278 3456 2758 0006082 1874 14843 STD 1500 0265 3456 2759 0005987 1934 14854	
STD     1100     0332     3447     2745     0007177     1677     14815       STD     1200     0311     3451     2751     0006708     1747     14823       STD     1300     0293     3454     2755     00065343     1812     14852       STD     1400     0278     3456     2758     0006082     1874     14843       STD     1500     0265     3456     2759     0005987     1934     14854	
STD 1200 0311 3451 2751 0006708 1747 14815 STD 1300 0295 3454 2755 0006343 1812 14832 STD 1400 0278 3456 2758 0006082 1874 14843 STD 1500 0265 3456 2759 0005987 1934 14843	
STD 1300 0293 3454 2755 0006743 1812 14832 STD 1400 0278 3456 2758 0006082 1874 14843 STD 1500 0265 3456 2759 0005987 1934 14854	
STD 1400 0278 3456 2758 0006082 1872 14832 STD 1500 0265 3456 2759 0005987 1934 14843	
STP 1500 0265 3456 2759 000987 1934 14865	
194 OBS T1519 0263 34564 2759 14857	

REFERENCE	: 1							*******			000	-1514 *	Ont			MAX	1			T ava =			
CTRY ID.	SHIP	LATITU	DE	LON	GITUDE		MARSDEN	STATION TI (GMT)		YEAR	CRUISE	SINAT	TIÓN	-	DEPTH	DEPTH	0	WAVE SERVATIONS	THER	CODE		51	4ODC TATION
ODE NO.	. CODE		1/10		17/10	6.	10* 1*	MO DAY H			NO.		MBER		BOTTOM	S'MPL	S DIR	HGT PER SEA	CODE	TYPL A V	T	N	UMBER
31116	3 PW	2957	' N	14	0005W		087 90	09 07 1	190 1	967	N09	005		T	4050	15	35	0 4	01	8 2			0005
		1					WA		/IND		AIR	TEMP.	. %	-	NO.				1 01		'		0000
							COLOR	TRANS. DIR.	SPEED	METE	)·	Π,	WET	VIS.	OBS.	ORSERV	CIAL ATIONS						
							CODE	tm I UIK.	OR FORCE	(mbs	I BULE		ULB		DEPTHS								
							1	00	500	21	7 278	3 .	256	8	14								
	MESSEN	GR CAST	CAS	20					1		SPECIFIC VO	TILLE	2 /	2 D	sou	IND		PO 4-P	TOTAL-P	NO2-N	NO3-N	\$104-51	
	HR 1/3	NO.	TYI		DEPTH I	lm I	T °C	5 %.	SIG M	7-A	ANOMALY	-X107	DYN DYN	ι, Μ. 1n <sup>3</sup>	VETO		O <sub>2</sub> mi	1 2g a of 1	vg + ol/1	ug - 01/1	μg = 01/1	yg - al 'l	ρН
	HK 17	.0					+	+	+				+		+			+ + +					
		- 1	١ ,	TD 1	000	O.	2419	3514	237		00419	226	1 00	00	1 1 5	331		1		l		1	l
	1.0	90	08		000		2419	35143	237		0041	720	00	00		331							
	•			TD	001		2440	3519	236		0042	224	0.0	42		338							
	1 9	90	08		001		2440	3317	2 2 0	,	30421	4		42	• •	J J U							
	•			10	002		2430	3524	237	5	00416	540	Ωu	84	15	338							
				TĐ	003		2420	3528	238		00410			25		337							
	1	90	08		003		2420	35284	238							337							
			S	TΟ	005	Û	1958	3492	248		00314	440	01	98		217							
	1 9	90	08	S	005	Ü	1958	34923	248	3					15.	217							
			S	T D	007	5	1775	3469	251	1	00288	347	0.2	73	1.5	166							
	1 9	90	08	S	007	5	1775	34686	251	1					15	166							
				Tε	010		1712	3466	252	5	00276	537	03	44	. 15	151							
	1 9	90	ОВ	_	010		1712	34664	252							151							
				TD	012		1648	3460	253		0026			12		135							
				TD	015		1552	3448	254		0025	591	04	77		108							
	1 9	90	08		015		1547	34471	254							107							
	1.0	0.0		10	020		1252	3407	257		00226	579	05	98		013							
	1,	90	08		1020		1232	34049	258		00300					007							
				TD TD	025		1098 0972	3406 3408	260 263		00201			05		968 931							
	1.6	90	0B		030		0965	3408	263		0017	756	Ųū	00		929							
	1			J TÜ	040		0779	3401	265		0015	586	0.9	67		874							
	1.9	90	QB		040		0774	34011	265		0015	00	Ų ,	Ų,		872							
		. 4		TD .	050		0612	3403	267		0013	286	11	12		825							
				TC	060		0493	3407	269		00116			36		794							
	1 4	9.0	08		060		0486	34077	269							792							
	-			10	070		0444	3417	271		0010	375	13	46		791							
				TD	080		0406	3427	272		0009			44		793							
	1	90	03		080		0403	34274	272							793							
				TΟ	090		0379	3434	273		00085	530	15	33		799							
				TD	100	0	0355	3441	273	88	0007	812	16	15	14	807							
	1 9	90	08	S	101	2	0352	34418	273						14	808							
			S	TD	110		0333	3444	274	٠3	0007			91		815							
				10	120		0313	3447	274		0006			63		823							
				TD	130		0294	3450	275		0006			331		832							
				TD	140		0278	3453	275		0006			96		843							
				TO	150		0265	3456	275		0005	972	19	957		854							
	1 '	90	08	S	T152	Ü	0262	34568	276	Ü					14	856							

REFERENCE SHIP	LATITU		DNGITUDE	son		STATION TI	,	YEAR		STATIO	N.	DEPTH TO BOTTOM	MAX. DEPTH OF	003	WAVE ERVATION:	S   1	WEA- THER CODE	CLOUD			NODC STATION NUMBER
DDE NO.		1/10	3.40	10°	3.	MO DAY H	R,1.110		NO.	BMUMB	EP	50110W	S'MPL"	DIR.	HGT PER 1	SEA	2001	TYPE AM	1		NUMBER
311163 PW	3007	5N 1	4001 W	123	00	09 08	191 1	967	N09 00	ь	ł	4663	15	35	0 3		01	6 2			0006
					WA	TER V	/IN D	BARC	AIR TE	M.P. ℃		NO.		CIAL							
						TRANS DIR.	SPEED OR	METE	R DRY	WE	CODE	OBS.	OBSERV	ATIONS							
					CODE		FORCE	lmbs		BUL	<del></del>										
						34	507	21	3 267	22	8 8	13									
MESSEN	CAST	CARD		Ι.	to.				SPECIFIC VOLU	IM E	Ž ∆ D DYN. M	sou	IND		PO4-P	tota	A L P	NO2-N	NO3-N	\$104-\$	
HR 1.1	약 NO.	TYPE	DEPTH (m)	'	*C	2	SIGM	A-T	X-YJA MCHA	107	2 103	. VELC	CITY	03 m1/1	ug = 01/1		01/1	µg = at/1	μg = a1. l	µg = 01	
100	°		+	-		+		-		+					+	+	-				+
		STD	0000	, ,	445	3492	234	. 7	004428		0000	. ! 16	334				- 1				
19	9.1	OBS	0000		445	34918	234		004426		0000		334 334								
*	, 1	STD	0010		390	3498	236		004229	1	0043		323								
19	9.1	OBS	0010		390	34984	236		50722	1	5045	-	323								
•	-	STD	0020		244	3499	241		003824	9	00 84		289								
		STD			106	3500	244		003458		0120		255								
1 9	<b>5</b> 1	QBS	0030		106	34997	244		00.7436	, ,	V120		255								
•	. 1	STD	0050		857	3468	249		003076	. 5.	0185		186								
19	7 1	OBS	0050		857	34677	249		003010	, ,	010)		186								
•	•	STD	0075		770	3467	251		002883	3	0460		165								
10	1	085	0075		770	34672	251						165								
	-	STD	0100	1	707	3466	252		002754	5	0330		150								
10	1	085	0100	1	7∪7	34661	252	26					150								
		STD	0125	1	613	3456	254		002629	8	0398	15	124								
		STD	0150	1	502	3443	255	5	002489	4	0461	15	092								
19	91	OBS	0152	1	492	34413	255	6				15	089								
		STD	0200	1	223	3404	258	32	002235	8	0580	15	0 Û 3								
19	₹1	OBS	T0202	1	214	34027	258	3				15	000								
		STD	0250	1	084	3406	260	9	001983	2	0685	14	963								
		STD			964	3407	263		001784	6	0779	14	928								
19	9 1	085	0306		951	34073	263						924								
		STD	0400		774	3401	265	-	001553	5	0946		872								
19	₹1	OBS	T0406		764	34008	265						869								
		STC	0500		621	34∪1	267		001355		1092		828								
		STD	0600		501	3404	269		001192	4	1219		796								
1 6	9 1	OBS	0608		493	34047	269						795								
		STD			460	3413	270		001083		1333		797								
		STD			424	3423	271		000979		1436		800								
		STD	0900		388	3432	272		000876		1529		803								
		STD	1000		352	3442	273		000772	3	1011		806								
19	7.1	085	T1001		352	34419	273		0003	_			806								
		STD	1100		327	3445	274		000728		1686		812								
		STD	1200		305	3448	274		000687		1757		820								
		STD	1300		288	3451	275		000652		1824		830								
		STD	1400 1500		274	3454	275		000521		1888		841								
1.0	3.1	SID	-		265	3457	275		000594	. 3	1948		854								
1 9	* L	OBS	T1501	U	265	34566	275	9				14	854								

NCE	SHIP	LATITUDE	LC	NGITUDE SEL	M A R	SDEN ARE	STATIC (G	N TIN		YEAR	ORIGI CRUISE		TION	DEPTH	MAX, DEPTH OF	08	W A V E ISERVATIONS	W.EA	CODES		5	NODC TATION	
NO.	CODE	٠,	. 10	1,10 0 2	10*	77.	MOTO	AY HR	1 10		NO.		V BER	801107	S'MPL"	DIF	HGT PER SE	COD	TTPE A A	T	14	I U MEED	
163	PW	300ь	Ni 1	4000 W	123	00				967	NO9 0	7		4380	14	0.3	3 4	0.1				2007	_
100		2000	14   1	4000 W	122	WA		_	ND		A 19 T		10	4	14	0.2	3 3,	0.1	4	1	1	0007	4
						COLOR	1		SPEED	BARC	· —	_	WET CO	NO.	SPE- OBSERV	CIAL							
						CODE	(m)	DIR.	FORCE	(mbs			ULB	DEPTHS	OBZEKA	AUUNS							
								05	512	22	0 250	1 2	233 8	14									
1				1			1			1		<u> </u>		1			1				I	T	-
	MESSENGR TIME	CAST NO.	CARD	DEPTH (m)	T	*C	s *		SIGM	A-1	SPECIFIC VOL		≥ ∆ ! 0YN.	SO VEL	TIDE	00 ml	PO4-P	TOTAL~		NO3-N pg - or I		рН	
	HR 1/10	1		1	-								x 10				+	14		pg - o -	7,	1	_
										1				1	1								
			SID	0000		459	351		236		00430	32	000		340								
	2∪.	l	085	0000		459	351	-	236						340								
	3		SID	0010		409	352		238		00408	38	004		331								
	20	I	OBS	0010		409	352		238		00377		36		331								
	2.	,	SID	0020 0029		265	352		242		00373	ΙÚ	Ú∪8		297								
	20	1	085 STD	0029		157	351 351		244		00347	/. O	0 4 1		270								
	2∪	1	085	0048		993	349	-	247		00347	4 7	011		227								
	20.	1	STD	0050		968	349		248		00316	3.8	018		220								
	20	1	085	0072		769	340		251		00210	,,,	010		164								
		•	STD	0075		765	346		251		00286	44	045		163								
	20	1	OBS	0096		719	346		252				•		153								
		-	STD	0100		706	340		252		00275	1 2	032		148								
			STD	0125	1	592	344	. 7	253	8.	00264	54	009	6 15	117								
	20	1	OBS	0145	1	494	343	33	254	9				1 5	087								
			STD	0150	1	461	342	9	255	3	00250	62	046	1 15	077								
	20.	1	085	T0197	1	201	340	134	258	86				14	995								
			STD	0200	1	193	340	4	258	8 8	00218	36	057	8 14	993								
			STD	0250	1	.063	340		261	4	00193	97	008		956								
	20	1	035	0295	C	1965	340		263	31					928								
			SID	0300	C	957	340	-	263	3 3	00176	58	077		925								
	20	1	085	10397		804	340		265						883								
			STD	0400		798	340		265		00158	_	094		881								
			STD	3500		629	340		267		00135	85	108		832								
	20	1	085	0597		512	340		269		00131		1.71		800								
			510	0600		510	340		269		00121		141		800								
	2.		STD	0700		458	341		270		00108	J 0	1 3 3		796 796								
	20	ı	085 510	0792 0800		415	342 342		27]		00096	0.6	143		797								
			510 510	0900		1383	342		272		00096		152		801								
	27	1	385	0988		358	343		273		JU000	20	102		806								
	٠,	*	STD	1000		355	344		273		00078	86	100		807								
			STD	1100		330	344		274		00071		108		814								
			STD	1200		308	345		279		00066		175	-	822								
			STD	1300		295	345		279		00063		181		831								
			5TD	1400		276	345	6	275	8	00060	59	187	9 14	842								

EFERENCE	SHIP			# E	MARSDEN SOUARE	STATION TIE	W.E. YEAR	ORIGINA		DEPTH	MAX. DEPTH	OBSE	WAVE RVATIONS	WEA-	CLOUD			NODC
PY ID.	CODE	LATITU	1/10 LOF	NGITUDE HE	10. 1.	MO DAY H	I	CRUISE STA	MBER	BOTTOM	S'MPL"	l .	HGT PER SEA	CODE	TYPE AM	1		JUMBER
311163	a Dw	3005		959 W			97 1967	+		4480	16	1	0 3	01	6 2			0008
511102	PPW	3003	14   13	777 W	WAT	-	IND BAR	A 10 75 44 5	· °C	T NO			0131	1 01	0.2	1	'	0000
					COLOR		SPEED METE	R DRY	WET COD	OBS. DEPTHS	SPE OBSERV	ATIONS						
					CODE	lm)	FORCE (mbs	BULB	BULB	DEFINS								
						36	510   23	7 261	239 8	14								_
	MESSENG	CAST	CARD	D. F. O. T	T *c	s ·4.	SIGMA-T	SPECIFIC VOLUM	₹ ∆ D	501	DND	0 2 ml/l	PO4~P	TOTAL-P	NO2-N	NO3-N	5104~5	рн
	HR 1/3	약 NO.	TYPE	DEPTH Im1	, ,	,	JIGMA-I	ANOMALY-X107	x 10 <sup>3</sup>	" VELC	OCITY	07 11171	μg = αt/1	ا/اه - وبر	μg = al;1	μg = at/i	hā - at,	1
		1 1	STD	0000	2439	3514	2365	0042553	0000	່ 15	335						,	
	19	7	OBS	0000	2439	35135	2365			15	335							
	•		STD	0010	2422	3513	2370	0042115	0042	2 15	333							
	19	7	OBS	0010	2422	35134	2370				333							
			STD	0020	2355	3518	2393	0039971	008		319							
			STD	0030	2282	3522	2417	0037696	0122		303							
	19	7	085	0034	2251	35232	2427				296							
			STU	0050	2115	3498	2446	0035017	0199		260							
	19	7	OBS	0054	2079	34941	2453				251							
			STD	0075	1864	3489	2505	0029471	0276		194							
	19	7	085	0033	1792	34841	2519				174							
			5TD	0100	1699	3468	2529	0027226	034	5 15	148							
	19	7	085	0109		34599	25.2		0/1	. 16								
			510	0125	1568	3446	2542	0026007			071							
	1.0	. 7	STD	0150	1442 1384	3428 34208	2556 2563	0024745	0476		053							
	19	, ,	085 STD	0162 0200	1203	3406	2587	0021842	059		997							
	19	. 7	OBS	10216	1139	34014	2596	0021042			976							
	1 2	, ,	SID	0250	1061	3404	2612	0019583	069		955							
			STD	0300	0955	3405	2631	0017847			924							
	19	7	OBS	0324	0909	34052	2638			-	911							
	-		STD	0400	0782	3401	2654	0015652	095	7 14	875							
	1	7	OBS	10433	0731	33998	2661			14	860							
			STD	0500	0632	3402	2676	0013625	110	4 14	833							
			STD	0600	0515	3407	2694	0011873	143	1 14	803							
	19	7	085	0649	0471	34098	2702				793							
			STD	0700	0448	3415	2708	0010571			793							
			STD	0800	0409	3425	2720	0009462	144		794							
	19	97	OBS	0866	0387	34312	2727				797							
			STD	0900	0379	3434	2730	0008530			799							
			STD	1000	0356	3440	2738	0007898	161		807							
	19	97	OBS	1082	0338	34451	2743	000725	160		814							
			STD	1100	0334	3446	2744	0007274			815							
			STD	1200	0314	3451	2750	0006742			824							
			STD	1300	0296	3454	2754	0006377			834							
			STD	1400	0279	3456	2757	0006093		-	843							
			STD	1500	0264	3458	2760	0005828	194		854							
	15	<del>)</del> /	OBS	11630	0246	34580	2762			1 4	868							

E	SHIP	LATITU	D.	1.0	CITUE		MAR	SDEN	STATIO	N TIM			_	DRIGINA	TOR'S		DEPTH	MAX		WA		WEA	CLOUD			NODC
	DDE	LATITU	1/10		GITUDI 1.	DRIFT OF	10.			MII AY HR.		YEAR	CRUISE NO.		ATION		TO BOTTON	0.5	"		ATIDNS	THER	TYPE		5	TATION L 41 BER
63	PW	3002	N	13	959	W	122	1	09 1		-	967	N09	009	)		4480				1	01	3 4			0009
								WAT	ER	Wil		BARC	-	A IR TEM		1	NO.			֝֟֝֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	- 1	1 01			1	0007
								COLOR	TRANS.	DIR.	SPEED	METE	R E	ORY	WET	CODE	0.05	08560	ECIAL VATION!	5						
								CODE		_	FORCE	(mbs		ULB	8018		-	-		-						
-		7					1			03	509	23	4 2	61	233		14	l		4	-				T	
M	ESSENGR TIME	CAST	CAR		DEPT	H (m)	1	'c	5.	4.	SIGM	A-T	SPECIFIC	VOLUM ALT-X10		E A D		DAD	D <sub>2</sub> mi			TOTA L→P		NO3-N		рН
н	R 1/10	1		-											$\perp$	x 10 <sup>3</sup>	V 61	UCIII		ν	g = 01'l	ug - 01 1	μg = 01'l	pg - a1	yg - 01	
				_						j										1						
	10/			TD		000 000		436	351		236		004	2366	• (	0000		335								
	186		0B:			009		436	351 351		236							335								
	100	,		T D		10		410	351		237		004	1695	. (	0042		330								
				TD		20		270	351		241			7937		0082		297								
	186	5	05	S	00	28		157	351	21	244							269								
			S	T D	00	30	2	121	35U	6	245	0	003	4524	2 (	118	15	259								
	186	ó	063			47		885	346		248	-						193								
				TD		150		871	346		248		003	1007	7 (	184		190								
	186	5	OB:			70		779	346		250							166								
	100			10		75		759	346		251		002	883	2 (	258	1 5	161								
	186	0	083	5 TD		}94 L00		.775Q .653	346 346		250	-	002	6774	. ,	2220	1.0	133								
				T D		125		537	344		254			5781		0328 0394		099								
	186	á	0B:			42		452	342		255		• • •	,,,,,		,,,,		073								
				TD		50		400	342		256		002	4331	1 (	3456		057								
	186	5	08:	S	10	92	1	175	340	04	258	9					14	985								
				TD		00		156	340		259			1283		0570		980								
	104	,		TD		250		042	340		261		001	9039	9 (	0671		948								
	186	>	08:	S TD		287 300		1962 1934	340		263		001	7362		762		925 917								
	186	5	0B:			883		770	340		265		001	1302	٠ (	1102		868								
				ΤĎ		.00		740	340		266		001	5052	? (	924		859								
			5	TD	0 5	00	C	1592	340	1	268			3159		1065		817								
	186	ó	0B	5	05	79	C	506	340	15	269	91					14	795								
			S	ΤD	0.0	00	C	1494	340		269	94	001	1839	9	1190	14	1794								
				T D		700		)443	341		271		001	0438	3	1302		+791								
	186	5	OB:		_	774		1412	342		271							791								
				TD		300		404	342		272			9329		1400		+792								
	104	٤		TD	T 0 9	900		)376 )357	343		273		000	8495		1490		798								
	186	2	0B:	S TD		000		351	343 344		273		000	7766	ζ.	1571		+803 +805								
				TD		100		329	344		274			77216		1646		813								
				T D		200		310	345		279			6770		1716		822								
				TD		300		294	345		275			6428		1782		833								
				TD	_	.00		281	345		279		000	6190	)	1845		+844								
	186	Ś	OB:	5	T 14	171	C	1273	345	53	279	5 7					14	853								

FEPENCE IT ID.	SHIP	LATITUDE		ONGITUDE SELECTIONO.	MARSDEN SQUARE	STATION IGMT	TIME	YEAR		JISE	STATIC		DEPTH TD	MAX. DEPTH OF	085	WAVE ERVATIONS		CODE			NODC
NO.		1	10	11 to ==	10" 1"	MO DAY	HR.1/10		l N	10.	NUMB	ER	BOTTOM	S'MPL'S	DIR.	HGT PER 5	CODE	TYPE A M	т		NUMBER
11163	PW	2825	N   1	14002 W	087 80	09 12	197	196	7 N	09 01			4663	14	00	0 2	01	6 2			001
						ATER	WIND	BA		AIR TE	MP. °C	vis	NO.	SPEC	IAI						
					COLO	R TRANS. DIR	SPEED OR FORC	1		BULB	W E	1	OBS. DEPTHS	OBSERV							
						07		_	79	256	2.2	8 8	14								
	MESSENGR TIME OF HR 1/10	CAST ND.	C ARD TYPE	DEPTH (m)	τ ℃	s ·/	ŞIG	MA-I		CIFIC VOLI		₹ △ D DYN. M x 10 <sup>3</sup>	SOL	DCITY	D <sub>2</sub> ml <sup>4</sup>	PO4=P 20 = 01/1	f Ο T Δ L = P μg + σ!/Ι	NO2-N pg - abl	NO <sub>3</sub> -N I do - gu	SI D4- yg - at	
-			STD	9000	36.36	3540	2.2		1	01001		0110	1.								
	197		085	0000	2426			89	U	04024	+4	0000		335							
	197		085	-	2426	35404	-	89						335							
	14/		510 510	0008	2419	35402		91	_	0.201				335							
			SID		2389	3538		98		03940		0040		328							
	197		0BS	0020	2254	3531		32	0	03621	7	0078		295							
	197		STU		2157	35269		56						271							
	197		085		2155	3527		57	U	03391	. 7	0113	15	271							
	197		SID	0046	2096	35239		560													
	197		OBS	0071		3522		69	0	03278	8 8	0179		258							
	141				2018	35136	_	84	_					239							
	107		SID		1998	3513		89	0	03102	27	0259		235							
	197		085	0091	1927	35111		06						217							
			SID		1912	3510		09		02919		0334		214							
	197		SID		1855	3505		19	Ü	02826	3	0406		202							
	197	'	OBS	0137	1820	35003		24						193							
	1.07		STD		1773	3492		30	0	02734	6	0476		181							
	197	,	OBS	10179	1659	34745		43						149							
			SID		1539	3458		58		0.473		0000		114							
			STD		1306	3427	25		0	02237	3	0724	15:	044							
	197	(	OBS	0270	1234	34193								020							
	10.		SID		1178	3416	26		0.	05089	17	0832	150	006							
	197	(	OBS	0358	1063	34106		17						974							
			STD		0943	3409	20	35	0 (	01758	12	1024	14	937							
			STD		0717	3404		66	0	01467	Q.	1186	14	867							
	197	(	OBS	0538	0653	34019	26	73					141	847							
			STD		0599	3409	26	86	0.0	01279	8	1323	148	837							
			STD		0525	3419	2.7	03	0	01121	Q	1443	148	825							
	197	(	OBS	0718	0513	34206	27	0.5					14	823							
			SID	0800	0470	3428	27	16	0.0	00997	1	1549		820							
	197	(	OBS	0899	0425	34349	2.7	26						819							
			STD	0900	0425	3435	2.7	27	0.0	00900	O	1644		819							
			STD	1000	0386	3441	27	35		00817		1730		820							
			SID	1100	0353	3440	2.7	43		JU749		1808		823							
			STD	1200	0328	3450	27	48		00697		1880		830							
			STD	1300	0309	3452	2.7			00667		1949		839							
	197	(	385	T1355	0302	3453U								845							

NCE ID.	SHIP	LATITU	DE	LON	IGITUDE	DAIRT	MARS SQU	DEN ARE	STATE	ON TIN		EAR	CPUISI	ORIGINA	ATOR'		DEPTH TO	DEPTH OF	08	WAVE SERVATIO	NS	WEA- THER	CLOUD		1 5	NODC TATION
NO.	CODE	•	1/10		* 11 10	P =	10*	1-	MO D	AY JHR	T 10		NO		UMB		90TTO8	4 2,44 br.	5 012	HGT FER	SEA	CODE	TYPE A M	1	1	UNBER
163	PW	2958	N	13	959 w		086	99	09 1	3 2	01 1	967	NOS	01	1		4206	15	06	0 3		01	6 2			0011
- '							1	WAT			IND I		`	AIR TEN		: 1	NO.	1		1			0.2	,	- 1	0011
								COLOR	TRANS	DIR.	SPEED	METE	)-	DRY	WE	- VIS	085.	000000	CIAL ATIONS							
								CODE	(m)	DIR.	FORCE	(mbs		BULB	BUL	.В	DEPTHS									
										11	508	16	3 2	261	22	8 8	14									
	MESSENGE	CALL	CA				1		T .				carcur	C VOLU		₹ △ ⊅		UND		PO4-		OTAL-P	NO. N	NO <sub>3</sub> +N	5104-5	
	TIME	OF NO.	TY		DEPIH	(m)	1	°C	2	٠	SIGMA	-1	ANDA	ALTERIC	7	DYN. M x 10 <sup>3</sup>		OCITY	02 ml/	20.0		vg - at	N-10 - Pu	. ug = at1	µg - al	pН
	HR 1/10						+		+				-			X 10	+	-		+				-	-	1
				TD	000			439	351		236		004	+274	7	0000		335								
	20	1	08		000			439	351		236							533 <b>5</b>								
		_		TD	001			425	351		236		004	+229	4	0043		333								
	20	1	08		001			425	351		236							6335								
	20	,		TD	002		2	262	35		240	Q	001	3845	6	0083	1 :	294								
	20	1	08	_	002		,		349			,	00'	25.20	^	0122	. 1.6									
	20	,		TD	003			121	349		244		00.	3539	J	0120		258								
	20	1	08		004			926	347		248		20	5.1 /. 1	0	- 1 - 7		200								
	2 Ü	1	08	TD	005			912 781	347 347		248		00.	3141	7	<b>Ü</b> 187		5168								
	20	1		TD	007				341		251 251		00	2851	a.	04.										
	3.0	1						700					004	2651	U	0262		5164								
	20	1	08		009			674	345		252		0.0	3700	_	0 1 2 2		5138								
				10	010			656 539	345		253			2705		0331		5133								
	3.0	,	08	TD	012				344		254		00.	2582	2	0397		5099 - 20								
	20	1			014			438	342		255		0.0	11.		30.00		5069								
	2.0	,		TD	015			415	342		256		00.	2441	4	0460		0002								
	2Ū	1	0.6	_	019			185	340		258		0.6	21.0	_	2 - 7 -		4989								
				TD	020			178	341		258			2168		0575		4987								
	2.0	,		TO	025			070	340		261		UU	1944	3	0578		4958								
	20	1	OE	_	029			979	340		263		0.0	1771	7	0771		4933								
	20	,	OB	TD	030			967 795	340		263 265		UU	1774	1	0771		4929 487∂								
	20	1		5 5TD	040			776	340		265		0.0	1552	7	0937		487± 487±								
				TD	050			514	340		267			1327		1081		4826								
	20	7	0.8		058			512	340		269		00.	10-1	,	1001		4799								
	20	1		, T D	060			504	340		269		0.0	1173	8	1_06		4798								
				TD	070			450	34		271			1044		1317		4794								
	20	1	OE		078			415	342		271		00		9	101		4793								
	20	1		TD	000			409	344		272		0.0	0938	7	1416		4794								
				TD	090			378	34		273			0044		1506		4799								
	2 Ü	1	OE		097			357	340		273		001		•	1-00		4904								
	20	*		TD	100			351	344		274		00	0769	2	1586		4805								
				TD	110			328	344		274			0705		1000		4813								
				TD	120			308	349		275			0,59		1728		4822								
				TD	130			292	34:		275			0625		1791		4832								
				TD	140			279	345		275			3609		1050		4843								
		1		35	T146			273	345		275							4852								

REFERENCE					- #	MARSDEN	STATI	ON TIME					ATOR'S		DEPTH	MA			VAVE RVATION	,	WEA-	CLOUD			NODC TATION
CTRY ID.	CODE	LATITU	DE 1/10	LONG	1/10 E	SQUARE		SMTI AY HR.1		YEAR	CRUISE NO.		TATION 198 M U M		BOTTOM		F			SEA.	CODE	TYPE AM	1		UMBER
31116	3 Pw	3005		139				4 19		967	N09	01	2		4480	1	5	10	2 3		01	2 4			0012
,						WA	TER	WIN		BARC	3 <b>-</b> -	AIR TE		vis	NO. 085.	s	PECIAL	L							
						COLOR	TRANS.	DIR,	OR OR	METE (mbs		DRY ULB	W ET BULB	COD	DEPTHS	OBSE	RVATI	DNS							
						-	-		ORCE 05	15	$\overline{}$	67	22.	3 8	14	+-									
			·			1	<u> </u>	24		1 10				_			T	1		Π			1.0	510 5	
	MESSENG		CAI		DEPTH (m)	T *C	\$	•/	SIGM	A - T	SPECIFIC	ATA-TI	97 I	E △ D YN. M X 10 <sup>3</sup>	VEL	DCITY	02	m1/1	PO4=P		17A L → P g = e1/1	NO2-N	ND3-N	SI O4-Si	
	HR 1/10					ļ	+							X 10	-		+		-	+-					+
				_	0000	3441	25/	30	226	1	00.	+291	3	0000	1 1 5	335					,				,
	19	7	0B	TD	0000 0000	2441 2441	350	J93	236		004	1241	)	,,,,,		335									
	19	ſ		TD.	0010	2420	35		236		005	+226	7	0043		332									
	10	7	0B		0010	2420		105	236		00	0				332									
	1 4	'		TD .	0020	2298	35		240		003	3901	3	0083		5304									
	19	7	OB		0029	2194		J74	243			_				278									
				TD	0030	2183	350		243		003	3615	4	0121	1.5	27t									
	19	7	08		0048	1992	34	874	247	7 1					15	5225	5								
				TD	0050	1966	34	85	247	76	003	3216	8	0189	9 15	5216	3								
	19	7	0 B	S	0073	1751	34	648	251	L 4						5158									
			S	TD	0075	1745	341	65	251	15	00	844	+4	046		5157									
	19	7	08	5	0097	1680		624	252							5]4]									
			S	TD	0100	1673	34		253			.707		0334		5139									
				TD	0125	1595	34		254		00	∠57 <u>1</u>	. 8	0400		5119									
	19	7	0.8	-	0148	1499		481	255				-			5091									
				TD	0150	1485	34		256		004	2431	. 9	046		5087									
	19	7	08		10199	1203		038	258			2101		O 7.		4996									
				TD	0200	1200	34		258			2193		0 > 78		4995									
				T D	0250	1083	34		26			1952		068		496: 4939									
				TD	0300	0982	34		261		00	1781	1.6	077		4935 4935									
	19		0.8		0300	0982		114	26:							493: 489:									
	19	7	08		0399	0834		013	264		0.0	1 - 5 -	7 4.	0946		4894									
				TD	0400 0500	0832 0637	34 34		264			1631 1353		100		4835									
				TD TD	0600	0500	34		26			1170		122		4798									
	19	7	08		0604	0496		ü69	26		0.0	/ (	-			4795									
	19			, T D	0700	0447	34		27		0.0	104	1 1	133		479									
				STD	0800	0405	34		27			0926		143		479									
	19	7	O E		0804	0404		274	27							479	3								
		*		STD	0900	0377	34		27		00	084	3.3	152	0 14	479	9								
				TD	1000	0351	34		27		00	076	<b>3</b> 2	160	0 14	480	5								
	19	97	Q.E		1009	0349		422	27						1	480	6								
	•			STD	1100	0328	34		27	46	0.0	071.	31	167	4 1	481	3								
				STO	1200	0308	34	51	27	51	00	066	73	174	3 14	482	2								
				STD	1300	0291	34	54	27	55	00	063	20	180	8 1	483	1								
				GTO	1400	0276	34	56	27	58	00	0609	59	187		484									
				STD	1500	0264	34	56	27	50	0.0	059	75	193	0 1	485	4								
	1.0	97		35	T1521	0262	34	564	27	59					1 -	485	7								

REFER	10.	SHIP	LATITU		LON		4 DC	MARSI	RE	STATION T		YEAR	CRUISE ND.	5	ATOR'S TATION		DEPTH TO BOTTO	Derin	OBS	WAVE ERVATIONS	WEA- THER CODE	CODES		5	NODC TATION LUMBER
300	NO.	1		1:10		1,:10	=	10"	1" /	AD DAY	HR.1 10	-	140.		10111021										
3 1	1163	PW	3004	N	14	000 W	1	123	U0 (	09 15	200	1967	N09				457.	15	31	0 4	01	6 2	ł		0013
-									WAT	R	WIND	BAR	0- A	IR TEA	19. °C	VIS	NO.	SPE	CIAL						
									COLOR		59E E	1-6		JLB JLB	W ET BULB	COD	DEPTH	OBSERV	ATIONS						
								1	CODE	Im I	FOR	CE IMB		-		+-	-	+							
										24	SÚ	7   15	9 2	61	228	3 8	14	<u> </u>						_	
		MESSENG TIME HR 1/1	CAST NO.	C.A.	PO PE	DEPTH	(m)	1	*c	s ·	SII	GMA-1	SPECIFIC		1912	Σ Δ D DYN. M x 10 <sup>3</sup>		TOCITA	02 m1/1	PO 4-P µg = 01/1	FOTAL = P	NO2-N ug - at.	NO3=N µg - at 1	21 O a - 2 10 - 2u	рн
							Ì															1	1		
		1		5	TD	000	0	2	454	3509		357	004	331	3 1	0000		5338							
		20	0.0	OE	15	000	Ü	2.	454	35089		357						5338							
				5	TD	001	0	Z	439	3509		361	004	293	1	004		5336							
		20	00	OE	35	001	0	2	439	35088		361						5336							
				9	CT	002	O	2	416	3513		372	004	199	1	008/		5333							
		20	0.0	OE	3.5	002	9	2	348	35173		395						5318							
				9	STD	003	0	2	330	3515	2	398	003	949	4	012		5314							
		20	00	0 6	35	004	9	2	138	3485	1 2	457						5238							
				2	ST0	005	Ū	- 2	n 24	3464	2	460	003	200	4	040		5234							
		2.0	0.0	0.8	35	007	7.3	1	789	34628	3 2	503						5169							
				5	STD	007	15	1	785	3464	2	505	002	941	5	027		5169							
		2 (	00	O.E	3.5	009	8	1	726	3467	2 2	522						5155							
					510	010	0	1	718	3466		523		760		0:5		5153							
					STD	012	25	1	608	3444		536	00.	065	8	041		5122							
		20	00	01	35	014	. 9	1	493	3434	2 2	550						5088							
					STD	019	0	1	487	3434		551		.526		048		5086							
					STD	020	0	1	219	3404		583	00.	2230	6	UOU		5012							
		21	00	01	35	020	1	1	215	3403		583						5000							
					STD	025	50	_	077	3406		610	00	1971	11	070		4960							
		21	00	01	3.5	029	99		958	3407		2632						4925							
					STD	030	00	0	956	3407		2632		1771		090		4925							
					STD	040	0.0	0	769	3401	2	656	00	1549	7 2	096		4870							
		2	00	0	BS	T 0 4 (	00	0	769	34Ú0		2656						4870							
					STD	050	0.0		1609	3402		2679	00	133	13	111		4824							
		2	00	0	BS	0.5	97	C	498	3403		2694						4795							
					STD	061	0.0	C	1496	3404		2694		1186		143		4794							
					STD	07	00	(	446	3417		2710	0.0	103	99	134		4792							
		2	Ū0	0	BS	07			804	3426		2721						4793							
					SID	0.6			)4Ü5	3427		2722		U921		144		4793							
					STD	09	00	(	375	3435		2732	0.0	064	1 :	153		4798							
		2	00	0	BS	09	93	(	350	3440		2739						4804							
					STD	10	00	Ċ	348	3441		2739		∪77:		101		4804							
					STD	11	00	(	325	3447		2746		070		168		14812							
					STD	12	0.0	(	3335	3451		2751		066		175		48-0							
					STD	13	00	(	289	3454		2755		005		182		4851							
					STD	14	00	(	276	3455		2757	00	061	3.2	105		14842							
		2	00	0	BS	T14	9]	(	267	3455	8	2758						L4854							

CTRY ID.	SHIP	LATITU	IDE I	LONGITUDE	MARS SQU	DEN ARE	STATE OI	ON TH		YEAR	CRUISE	\$	ATOR'S		DEP	D	MAK. DEPTH OF	085	WAVE ERVATIONS		£R	CLOUD			NDDC STATION
CODE NO.	CODE		\$/10	1/10	10*	1"	MO D	AY HE	.1/10		NO.		UMBER		BOTT	TOM	S'MPL'S	DIP.	HGT PER S	EA CD	DE	TYPE AM	r		NUMBER
311163	PW	295	76N ]	13957 W	0.86	99	09 1	6 1	87 1	967	N09	01	4	1	37	49	33	33	0 2	0	1	8 4			0014
					[	WA	E P	W	IND	BARC	۰ -	IR TEA	AP. °C	- VIS	NO	D.	SPEC	IAL							
						COLOR	TRANS,	DIR.	SPEED	METE (mbs		JLB	W ET BULB	COD	DEP	BS.	AV#328C								
					-			34	SU4	15	_	61	228	8	1	h									
		_	1					74	704	1	0 4	01		1	4						-			T	
	MESSEN C	CAST	CAPD	DEPTH (m)	1	*C	\$	·/	SIGM	A = T	SPECIFIC	VOLU	ME   2	A D		VELDO		D 2 ml/l	PD4-P	TOTAL		NO <sub>2</sub> -N	NO3-N	5104-5	
	HR_1/1		1176										`	x 103		VELUC	J111		9 - 0111	nd - 64		μg - at/l	yg - at/l	hā - aţ.	`
				1											ļ										
	3.0		STC			449	350		235		004	322	8 0	U00		153									
	18	5 /	0BS ST(	0000		449 442	350 350		235		004	308	1 0	043		153 153									
	18	3.7	085	0010		442	350		236		004	200	1 0	043		153									
	10	, ,	ST			427	350		236		004	275	7 0	086		153									
			STO			412	350		236		004			129		153									
	18	3 7	OBS	0030	2	412	350	39	236							153									
	1.8	3 7	OBS	0049	Ž	049	345	00	249	7						152									
			ST			041	349		246		003	369	1 0	405		152									
	18	37	OBS	0074		858	347		249							151									
	1.0		STO		1	853	347		24	<i>i</i> →	003	000	6 0	285	)	151	90								
	18	3 /	085 S <b>T</b> (	0100	1	733	346 346		252	0	002	907	<i>t.</i> C	357	,	151	5.0								
			ST			606	344		253		002			426		151									
			ST			472	343		259		002			491		150									
	18	37	OBS	0150		472	343		259							150									
			ST	0200	1	181	340		258	8 8	002	180	7 0	608	3	149	88								
	1.8	37	085	T0202		172	341		258	9						149									
			ST			057	340		26		001			711		149									
			ST			945	340		253		001	747	2 0	004		149									
	18	37	OBS	0301		743	340		26.			s = 1'=				149									
	18	. 7	STO	0400		748 746	340		265		001	523	3 (	967		148									
	10	> /	0BS S <b>T</b> (			598	340		265 268		001	310	3 1	109		148									
			ST			491	340		269		001			236		147									
	18	37	085	0605		487	340		260		00,					147									
			ST			443	341		271		001	036	4 1	341		147									
			ST	0860	0	404	342	6	27.	2.2	000	932	9 ]	441	)	147	192								
	1.8	37	OBS	0804		4 Ü 3	342		272							147									
			ST			376	343		273		000			529		147									
			STI			350	344		27.		000	175	5 1	609		148									
	18	3 /	OBS	1009		348 330	344		274		003	730	1 1	L 0 5		148									
			STI			312	344		274		000			685 756		148									
			STI			294	349		275		000			822		148									
			ST			278	345		275		000			886		148									
			ST			262	345		275		000			947		148									
	1.8		OBS	T1514		260	345		275	9						148	54								
	21	10	OBS	11747		228	34		27t							148									
			ST			228	345		276		000			030		148									
		. ^	STI			209	345		276		0.00	543	5 2	226		149									
	21	. 0	085	2254		191	345		276		000					140									
	7 1	1.5	STI	2500 2757		174	346		27		000	400	4 2	4.83		149									
	۷.	10	OBS ST			161 153	346		27		000	447	5	717		150									
	2.1	1.0	085	T 3265		150	346		27		000	,-, ,	- 4	( 1 )		151									

CE	SHIP	LATITUD	, E	1000	SITUDE	00078	MAPS1	DEN	TA12	ON TH	M.E	YEAR	CPUISE	ORIGIN A	TOR'	181	DEPTH	DEPTH		WAVE SERVATIONS		WEA- THEP CODE	COCES		2.3	NODC TATION JAMBER
	ODE		1. 10	LUNG	1 10	5 ¥ L_	10*		MO D	AY H	2.1 10		NO		J 141 B		BOTTOM	S'MPL	.2 D.18	HIGT PER S	EΑ		TERS A NAT		- + -	
_	- +			1			23					967	NO.	015			4252	15	33	3 3		01	6 7			0015
63	PW	30⊍1	Ν	140	08 W	1 1	ا د ے .	WA	_		IND	_		AIR TEM			NO.			1						
								COLOR	TRANS		SPEED	BARC		DRY	W E	T CODE	OBS. DEPTHS	OBSER	ECIAL VATIONS	;						
								CODE	im l	DIR.	FORCE	(mbs	1) [	BULB	BUL	.8	DEFINS	-								
										9.0	509	18	6	244	22	28 7	13									
						Т			T				CALCIE	ic volua		₹ ∆ D DYN. M.	50	UND		PO4-P	тот	A L -P	N02+N	NO3-4	SI Oa - St	pH
140	ESSENGE TIME	CAST	CAS		DEPTH I	m)	Ť	*C	S	•/	SIGN	T- A /		WALY-EIG		DYN. M.		OCITY	0,7 m1	/   pg + of t	~ 3	- 01 1	10 + Qu	yy = 01	µg − 01 l	
н	R 1 10	1									-				+		-		-							
																	1.0									
1			S	TD	000			456	3.5		23		00	4385	4	0000		338 338								
	21	6	ОВ	S	000			456		755	23		0.3	4340	,	0044		339								
				TD	001			450	35		23		UU	4540.	+	0044		5338								
	21	6	ОВ		001			446	35	J70	23 23		0.6	4143	2	0036		322								
				TD	002			375 277	35		24			3697		U126		5294								
	7.1		0B	TD	003			266		011	24							5296								
	21	Ь		T)	005			019	34		24		0.0	5/13	3	0198	1	5233								
	21	6	08		005			008		894	24	68					1 :	5231								
	E. 1			TD	007		1	779	34	62	25	05	0.0	2942	j	0277		5167								
	21	6	08		007		1	773	34	618	25	06						5165								
				STD	010	0	1	739	34	69	25	20	0.0	2810	3	0348		5160								
	21	16	Q E		010	1	1	737	34	688	2.5	21						5159								
			9	STD	012	5		565		46		43		2594		0416		5108 5059								
			9	STD	015		-	407		27		63		2410		0479 0592		7937 4981								
				5 T D	020			160		02		92	Ų J	2135	)	3346		4976								
	21	16	0.5		T020			144		006		194	0.0	1927	1	0694		4950								
				STO	0.25			1047		05 06	-	33		1764		0.78		4921								
				5 <b>T</b> D	030		-	)947 )933		064		35	0.0					4917								
	21	16		BS STD	030			765		00		56	0.0	1547	8	095.	2 1	4868								
				BS	040			753		999		58					1	4865	5							
	2 !	16		STD	050			3504	-	υū		78	0.0	1340	) 4	109	5 1	4821								
				STD	060			0490		105		596	Ú.	1171	7	142	2 1	479								
	2	16		BS	061			0478	-	1058		9.9						4789								
	۷.	10	_	STD	070		(	0441	3 (	+16	2 *	710		1041		133		4790								
				STD	080		(	0404	3	126	2 '	722	0.0	00932	2.9	143		479								
	2	16		bS	0.6	13		0400	3	27	7 2	723						479								
	_			STD	090	ΟŪ		0377		+35		731		06841		152		479								
				STD	100	50		0353		442		739	0 (	0077:	15	100		.4806 .4808								
	2	16		BS	110			0349		4421		740		0072	5.7	167		461								
				STD	111			0331		444		743		0073! 0070:		174		482								
				STD	12.			0310		446		747		0067		101		483								
				STD	13			0292		448		750 753		0064		188		1484								
				STD	14			0275 0260		450 452		756		0061		174		1485								
	_	1.	_	STD	15 T 15			0256		453 453		757						1485								
	- 2	16	0	BS	T15	رر		0230	, ,																	

REFERENCE	1				- ×	MARS	DEN		ION TI	M.E			ORIGIN			DEPTI	Utr	TH		VA VE RVA TIONS	WEA-	CLOUD			NODC
TRY ID.	CODE	LATITU		LONGITUD	0.7	SQU			GMTF		YEAR	CRU	HSE S	TATION IUMBES	İ	TO BOTTO		F		GT PER SEA	CODS	TYPE AM	-		UANBER
.00E NO.	1		1/10		/10 =	10'			AY H	-		+					3 10.1		-						/
31116	3 PW	3009	N	14002	W	123	00	09	18 2	202	1967	N(				452	6 1	5 3	121	2   3	0.1	6 6	1		0016
						[	WAT	ER	٧	IND	BARG	5-	AIR TEA	Λ <b>Ρ</b> , °C	vis	NO.		PECIAL							
							COLOR	TRANS.	DIR.	SPEED	M ETE		DRY BULB	WET	COD	OBS.		RVATIO	NS						
						-	CODE	1011	10	FORCE	+		_		-	13	+-		$\dashv$						
									10	509	22	4	233	228	7	1,2		_	$\perp$						
	MESSENGE	CAST	CAR	n		Ι.	to	١.				SPEC	IFIC VOLU	ME :	A D	S	DHUO	021	<b>n</b> 1/1	PO4-P	10TAL-P	NO2-N	NO3-N	5104-51	рН
	TIME	및 NO.	TYP		TH (m)	'	*C	,	٠/	3167	MA-T	AN	OMALY#XI	۰' ا '	x 10 <sup>3</sup>	, A1	ELOCITY	1 0,		μg = σt 'l	μg - α1/I	µg = at/1	νg + σ1."Ι	yg • a1₁1	
	HR 1/10	<del> </del>	-			+-				+		-													
			١ .	- 0	0.06	1 2	435	35	O.Z.	22	60	0	04296	5 1	000	1	5333					,	1		
	2.0				000		435 435		962		60	0	04290	, ,	, • 0 0		5333								
	20	_	083	-	000 009		429 429		U61	_	62						5334								
	2 Ü	1	OBS	-	010		426	35			63	a	04274	8 1	0043		533								
					020		377	35			78		04133		) บ ผ ร		532								
	20	1	OB:		028		313		080		98						5308								
	2.0	1			030		286	35			0.5	0	03878	7	0125	5 1	5302	2							
	20	1	08:		047		072	34	989	24	58					1	.5248	3							
		•			050	2	034	34	94	24	65	0	03322	3	197	7 1	.5238	5							
	20	1	08		071	1	805	34	653	25	0.1					1	5174	4							
		-		_	075	1	796	34	65	2.5	0.3	0	02960	U	275	5 1	1517	4							
					100	1	724	34	61	25	18	0	02830	4	348	3 1	1515	4							
			S	TO 0	125	1	633	34	52	25	32	0	02698	Q	041	7 1	15130	)							
	20	1	OB:	s 0	145	1	544	34	427	25	45						1510								
			Š	TD 0	150	1	513	34	38	25	48	0	02549	U	048		1509								
	20	1	ОВ	S T0	193	1	277	34	082		75						1502								
			5	10 0	200		250		08		80		02256		060		1501								
			S	TD 0	250		080	-	08		1 4	0	01961	. 6	0701		496.								
	20	1	08		290		973	_	068		29				000		492								
			5		300		958		06		31	U	01782	. 4	080		1492								
	20	1	ОВ	-	390		817		Ú 25		50				207		1488								
					400		795		03		54		101573	_	0970		1488 1482								
			_		500		610	-	02		79	U	01333	4	111		1482								
	20	1	ОВ	_	584		508		016		91	_	01101	) E.	124		1479								
					600		506		17		93 705		001198 001089		124 135:		1479								
	30	. 1			700		487		250		715	U	0 1005	, ,	1 ) )		1481								
	20	1	ОВ		778		1447		27		718	0	00976	5	145		1481								
					900		390		35		730		000558		155		1480								
	20	. 1	0B		976		1354		402		738	0			/		1480								
	20	, 1		-	000		350		42		740	С	00768	3 1	163		1480								
					100		333	-	47	_	745		00.718		170		1481								
					200		316	-	51		750		00676		177		1482								
					300		299		54		754		10064		184		1483								
					400		283		55		756		000620		190		1484	5							
	20		ОВ		457		273		556		758						1485	0							

	Ţ ·	_											_				_						,				
REFERENCE	SHIP	LATITE	LIDE	LON	GITUDE	DCT	MAR	ARE	STA.	TION TI	ME	YEAR	_	ORIGIN		~	4	DEPTH	MAX. DEPTH	0.8	WAVE SERVATI	ONS	WEA-	CLOUE	2		NODC
CTRY ID.	CODE		1/10	2014	17/10	NO.	10*	_		DAY H	R,1/10	ILAN			STATIO NUMB		8	MOTTON	OF S'MPL'S		HGT PE		CODE	TYPE AA			4UMBER
311163	Pw	300	18N	140	0019w		123	00	09	19	198	196	7 N	109 01			4	4389	15	پ∈	3 3		01	7 3			0017
								WAT	ER	٧	VIND		RO-	AIR TE		v	15	NO. 280	SPEC	TAL							
								COLOR	TRANS	DIR.	SPEED OR FORC	1	T E R bsl	BULB	BUL	co	101	DEPTHS (	⊃BSER∨⊿	A TION S							
										09	511	. 2	20	256	22	8 8	3	14									
	MESSEN	CAST NO.	CAR	D.			Ī.		Τ.		T		SPE	ECIFIC VOLU	ME	¥ ∆ DYN.	D	1002	40		, PO.4	-P 1	1014L-P	NO2-N	NO3-N	5104-5	
	HR 1/1	T NO.	TYP		DEPTH (	n)	,	*C	,	-/	SIG	M A -T		NOMALY-ET	07	DYN. x 10	33	VELDO		02 ml/	NB -		µg = q1/1	μg = αξ/I	yg - a! i	µg = 01"	I, PH
	11.0	-	-	-		-	-		-		+						_	+			-				-	-	-
		1	١	TO	0000	)	2	453	35	1.0	2 2	58	1	004318	4	000	0.0	153	3.0		1	1					1
	19	9.8	0B:		0000			453		103		58	•	,04510	-	000	, 0	153									
	19		OB.		0000			444		100		61						153									
				TD	0010			433	35			64	C	004265	1	004	. 3	153									
				TD	0020			329	35			97		03958		005		153									
	19	88	0B	S	0029					153																	
				TO	0030	J	2	229	35	13	24	25	Û	03687	8	012	22	152	88								
	19	98	0В.		004			052		878	24	55						152	42								
			_	T D	0050			043	-	89		58	C	03361	4	019	93	152	40								
	19	98	0B		0U7			851		918		10						151	91								
				TD	007			838		89		11	Ç	002884	9	027	71	151									
	19	9.8	0B		0098			691		620		26						151									
				TD	0100			677		60		28		002731		034		151									
				TD	0125		1	517		38	2.5	48	C	002550	3	() 44 ()	8 (	150	9.								
	19	98	0B		0149					216							_										
				TD	0150		_	377	34			64		002394		046		150									
	19		0B:	TO	0200			157	34	009		92	Ç	002137	4	058	5 3	149									
	19	<b>7</b> 8		7 D	020.			153 056	34			16	_	001920	/.	068	١.	149 149									
				TO	0300			958	34			34		01753		077		149									
	19	98	0B		0300			958		099		34		,01173	_	0 1 1		149									
	19		0B	_	T0399			769		UQ7		56						148									
		-		TD	0400			767	34			57	C	01543	3	094	• 1	148									
				TO	0500			621	34			77		001355		108	_	148									
			-	TD	0600			513	34			93		001199		121	_	148									
	19	98	08	S	060	l	0	512	34	051	26	93						148	01								
			S	TΟ	070	)	0	456	34	16	27	0.8	C	001059	2	132	26	147	96								
	19	98	0B	S	0798	3	0	411	34	248	27	20						147	95								
			S	TO	080	)	0	410	34	25	2.7	20	C	000947	3	142	27	147	95								
				T D	0900			381		<b>3</b> 3		29		000862		151	17	148	0.0								
				TD	100			355		41		3.8		000784	9	160	) (	148	107								
	19	9.8	0B:		100			355		405		38						148									
				TΟ	1100			332		46		45		000725		16		148									
				TD	1200			311		51		51		000670		174		148									
				TD	1300			293		54		55		000634		181		148									
	, .			T D	1400			278		55		57	C	000615	5	18	73	148									
	19	7 B	08	5	T1494	+	0	267	34	559	27	58						148	154								

REFEREN	CE				- #	MARS	DEN		ION TI	ME			ORIGIN	ATOR	•5		DEPTH	MAX. DEPTH		WAV	E	WEA-	CLOU			NODC
CTRY I	D. CO		LATITUDE		ONGITUDE ES	SQU			GMTI		YEAR	CRUIS		TATIO			CT MOTTOS	OF		SERVA!		THER	CODE			STATION NUMBER
	10,			10	1, 10	10*	+		H YAC			NO.		4 D W B	EK	+		S'MPL"	DIP	++	ER SEA	-	TYPE A	1	-	
3 1 1 3	163 P	W .	295951	N   1	40025W	U87	90	09].	20 .	197	1967	NO.	9 01	8			4200	15	34	3 .	3	01	7   5	- 1		0018
							WAT	ER	V	VIND	BAP	0.	AIR TE	MP. *(		vis.	NO.	SPE	CIAL							
							COLOR	TRANS.	DIR.	SPEED	M ET		DRY BULB	BUI	T   C6	ODF	OBS. DEPTHS	OBSERV								
							CODE		0.1	FORCE	+	$\rightarrow$		-	+-				-							
								ļ	01	518	17	19	256	6.6	2 2	8	14								_	
		SEN OR		CARD	DEPTH (m)	١,	*C		٠	517.4	1 A A		FIC VOLU		₹ ∆	D	sou		02 ml/	PO	4-P	TOTAL-P	NO2-N	NO3-	N SI 04	-Si pH
		1.110 T	NO.	TYPE	Der in ton	'	Ü	´	•••	31011		ANO	MALY~XI	0.	X 1	03	VELC	CITY	02	×0.	- 0111	μg = q1 (1	μg = 01 l	νg + οι	ه - وپر II	121
	-					-																				
	1		1	SID	0000	1 2	437	35	12	23	64	0.0	4261	8	000	0.0	15	335						1		
		197	(	085	0000		437		118	23								335								
		197		OBS	0009		429		116	23								334								
				STD	0010		418	35	12	23		0.0	4213	1	004	42	15	332								
				STD	0020		310	35		24			3915		008			307								
				STD	0030	2	208	35	11	24	30	0.0	3643	0	01.	21	15.	28.1								
		197	(	OBS	0033			35	114																	
				STD	0050	2	023	34	89	24	64	0.0	3330	7	01	3 J	15.	234								
		197	(	065	0051		014		877	24								232								
				SID	0075		823	34		25		00	2921	9	046	69		181								
		197	(	OBS	0077		811		783	25	-							178								
				SID	0100		706	34		25		0.0	2755	Q	030	40		149								
		197		085	0100		706		656	25		0.0	0	~	0. (	o ~		149								
				STO	0125		591	34		25			2643		040			116								
		107		STD	0150		469	34	31 301	25 25		0.0	2508	1	04	12		080 078								
		197	,	OBS STD	0151		464 202	34		25	, .	0.0	2204		058	90		078 996								
		197		0BS	10202		193	-	024	25		00	2204	4	000	07		993								
		191	,	SID	0250		088	34		26		0.0	1960	8	069	94		995 965								
				STD	0300		989	34		26			1788		078			938								
		197		OBS	0302		985		124	26		00	1.00					937								
				STD	0400		819	34		26		0.0	1620	1	09	58		889								
		197		OBS	0404	0	813	34	005	26	49						14	887								
				STD	0500	0	647	34	U 2	26	74	0.0	1379	7	110	08	14	839								
				STD	0600	0	520	34	04	26	92	0.0	1213	5	14	3 7	14	804								
		197		OBS	0606	0	514	34	044	26	92						14	803								
				STD	0700	0	459	34	15	27	0.7	0.0	1070	2	13	52	14	797								
				STD	0500	0	413	34	24	27	19	00	0958	2	14	53	14	796								
	197 197		OBS	0810	0	409	34	253	27	21						14	796									
			STD	0900	0	383	34	33	27	29	0.0	0865	0	15	44	14	801									
			STD	1000	0	357	34	40	27	37	0.0	0790	9	16	27	14	8 Ú S									
		1	OBS	1012		354		410	27								808									
			STD	1100		333	34		27			0743		1.70			815									
			STD	1200		312	34		27			0703		17			823									
			STD	1300		293	34		27			0666		184			832									
			STD			277	34		27			0631		190			842									
		197		STD OBS	1500 11524		263 260	34	565.	27 27		UU	0597	Ö	19	/ 1		853 856								
		17/		UD3	11944	U	200	54	200	21	υO						14	900								

RENCE ID.	SHIP	LATITU		LONGITU	0.7	SC	ARSDEN QUARE	(	ION TIA	,	rEAR	ĊRU		TATIO	DΝ	DEPTH TO BOTTO	OF	08	WAVE SERVATIO		WEA-	CCDE	1	5	NODC TAT ON
NO.			1:10		1.10	10	1.	MO D	AY HE	1,1/10		N	0. 1	NU MB	BE P	ROLLON	. Z.W. b.F.	5 019	HGT PER	5EA	CODE	TERE AN	1		- 014818
1163	PW	2901	N	14006	W	08	7 90	09	21 2	17 1	967	N(	9 01	9		484t	14	01	3 3		0.2	7 d			0013
							WA	TER	w	IND	BARC	-	AIR TE	MP "		NO.	1		1						
							COLOR	TRANS	DIR.	SPEED	METE	R	DRY	W E		DEPTHS	COSERV	CIAL /ATIONS							
							CODE	(m)		FORCE	(mbs	-+	8016	BU	_	DEFIN.	1								
									02	517	16	9	239	22	22 8	14									
	MESSENGR TIME o	CAST NO.	CAR	DE DE	TH [m]		t *c	s	•/	SIGM	A — T	SPEC	TRIC VOLU	M.E o'	₹ △ D DYN. M ¥ 10 <sup>3</sup>		OCITY	02 ml	PO4-		0141-P	%0z=N µg + at l	NO3-N pg + at 1	\$1 0 4 - \$1	p ts
				Ī				1								,				-,					,
	217				000		2480	35	36	236		0.0	04214	5	0000	1:	348								
			OB:		000		2480		355	236						1.5	348								
		,	083		009		2478		355	237						15	349								
					010		2470	35	36	237	2	0.0	04189	6	0042	1:	347								
			5.	TD 0	020		2385	35	36	239	8	0.0	3950	7	0083	1.5	328								
	217		065	5 0	029			35	357																
			S	TD 0	030		2294	35	34	242	3	0 (	3713	1	0121	. 15	307								
	217		QB:		045		2144		087	244	6					1.5	268								
			5	TD C	050		2069	35	01	246	()	0.0	03361	Ü	0192	1:	248								
	217	,	065		069		1872		841	249						1 5	195								
					075		1855	34		250		0 (	2947	3	0271		191								
	217		OB:		000		1816		896	251							183								
					100		1801	34		252			02803		0343		180								
					125		1754	34		253		0 (	2725	8	0412	. 15	170								
	217	,	089		134		1734		850	253							166								
					150		1695	34		253		0 (	02656	6	0479	15	156								
	217		OB:		178		1613		656	254							134								
					200		1498	34		256			2437		0006		100								
					250		1277	34.		258		0 (	02196	0	0722		032								
	217		065		271		1201		182	259							6000								
					300		1131	34		260		0 (	02003	7	3827	1 4	+989								
	217		OB:		364		0986		123	263							4947								
					400		0901	34		264			01695		1012		921								
					500		0702	341		266		0.0	01465	ä	1170		•86€								
	217		OB:		553		0620		004	267			<del>.</del> .	_			+836								
					600		0570	341		268			01271		1307		825								
	217				700		0484	34		270		Ü	01100	)	1426		807								
	217		085		741 800		0457 0437		195	271			20071	c	1600		+804								
			_					34.		271			00971		1529		806								
			089		900 927		0406	34		272		U.	10877	3	1622		811								
					000		0377	34	368	273 273		0/	0.700	6	170.		812								
					100		0351	34					00799		1706		816								
					200		0327	34		274			00739		1783		823								
					200 300		0306	34		274			00689		1054		830								
					40V		0287	34		275			00656		1921		+83A								
	217		089		400		0287		537	275 275		U	00635	C	198€		845								
	6.17			) I	-00		0201	24	111	610	)					Ι.	846								

ERENCE	SHI		LATITUE	DÉ	LON	GITUDE	DRIFT	M A R S	DEN	STA	TION THE		re a r	CPU	ORIGIN	TATION		DEPTH TO	DEFIR		WAVE SERVATION		WEA- THER	CLOUD		S.	NDDC IATION UMBER
NO.	CDD	DE		1/10		1/10	o z	10*	1.	MO	DAY HE	.1/10		NI	D. 1	I U W BE		NOTTON	S MPL	S DIR.	HGT PER	SEA	CODE	TYPE AM	1	Ν.	UWBER
1116	2 Di		3004	NI I	3.4.0	006 W		123	00	09	22 1	94 1	967	NI	9 02	0	- 4	+343	15	35	2 3		01	8 3			002
ų ro.	J F W	~ (	3004	, 1	140		1	127	WA		_	IND			AIR TE		7 1	NO.	1	1	144 ( + 1						JUL
									COLOR	_	1 -	SPEED	METE		DRY	WET	VIS.	OBS.	OBSERS	ECIAL VATIONS							
									CODE	tm1	DIR.	OR FORCE	(mbs		8117.8	BULB		DEPTHS	_								
											06	518	20	3	250	22.	2 8	14									
		_						$\Box$		4							E Δ D	T								610 6	
	AM ESSE TIA	ENGR ME 0	NO.	CAR		DEPTH	lm 1	T	*C	1	*/	SIGMA	A-T		OMALY-ET		DYN, M.		OCITY	02 ml/	PO 4-P		OTA L P	NO2-N ug + al/l	ND3=N yg - at/l	\$1 O4-51 ug - o1'1	pH
	HP 1	1/10								-							x 10 <sup>3</sup>	-				-		-			_
					1							į														}	
	,			S	<b>T</b> D	000			423		15	237		0	04201	8	0000		332								
		194		0 B		000			423		146	237							332								
					1 D	001			417		14	237		01	04190	1	0042		332								
		194		OB:		001			417		144	237					20.0:		332								
					TD	002			409		14	237			04176		0084		5331								
					TD	003			401		13	237		0	04162	2	0125		5331								
		194		08		003			399		127	237			02102	~	0.101		331								
					TD	005			049		+88	245		U	03403	2	0201		5241								
		194	•	OB.		005			049		+881	245			0.3000		0.200		5241								
					TD	007			867		97	251		U	02900	U	0280		5196 5194								
		194		0B		007			860		+968	251							5149								
		194	•	OB.		010			703 696		+696 +68	252 253		0	02715	й	0350		5147								
					TD TD	012			541		+42	254			02572		0416		5100								
		194		0B		014			410		1229	255		0	02712	0	0.10		5060								
		144	•		10 3	015			399		+22	256		0	02431	1	0479		5056								
		194		OB		T019			167		4014	259		- 0	02-01	•	0.17		4983								
		1 ) 4	•		T D	020			162		402	259		a	02139	1	0593		4982								
					TO	025			051		406	261			01926		0695		4951								
		194		ОВ		029			953		4079	263						14	4924								
			•		TD	030			949		408	263		0	01754	4	0787	14	4922								
		194		OB		039			777		4016	265						1.4	4873								
		1,-			TD.	040			773		402	265		0	01544	6	0952		4872								
					TD	050			1608		402	267			01330	-	1095		4823								
					TD	060			1492		405	269		_	01171		1220		4793								
		194	4	OB		060			1492		4054	269							4793								
		•			TO	070			449		416	270		0	01050	Q	1332	1 4	4793								
					TD	080			412		425	272		0	00949	7	1432	1 4	4795								
		194	4	08		080			411	3	4252	272	20					1 4	4796								
	194				TD	090	0	- (	383	3.	433	272	29	0	00865	0	1522	1 4	4801								
				5	ΤO	100	0	C	356	3.	440	273	38	0	00789	8	1605	1	4807								
		194	4	08	S	100	9	C	354	3	4409	273	38					1	4808								
				S	TD	110	0	(	332	3	446	274	45	0	00725	1	1681	1	4814								
				5	TD	120	Ü	(	311	3	451	275	51	0	00670	8	1751	1	4823								
				S	TD	130	0	C	292	3	454	275	55	0	00633	3 1	1816	1	4832								
				s	TD	140	0 (	(	276	3	456	275	8		00605		1878		4842								
				S	TD	150	) U	(	262	3	456	275	59	0	00595	2	1938		4853								
		194	4	QB	5	T153	38	(	258	3	4563	276	50					1	4858								

Table VI. Observed and interpolated oceanographic data for stations taken by USCGC TANEY at Ocean Station NOVEMBER, 15 October-5 November 1967, prepared from NODC Listing No. 31-1178 RT.

REFERENCE	faur.				_ =	MARS		5TAT	ION T	TIME		ORIGIN	ATOR	*5	DEPTH	4 M/		WAVE	WEA-				NODC
TRY ID.	CODE	LATITU			GITUDE 15	200			(GAAT)		YEAR		TATI		CT OTTO8	0	F	BSERVATIONS	THER	CODES		5	TATION
			1.10		1 10	10*	1,			IR.1./10			MUM	I E R	-	2 141			^	TEP: AM	1		
31 117	8 RT	2943	N	140	000 w	087	90		_		1967				475	5 1	5 09	] [3]	X 1	8 5			0001
							WA	-	+	W IND	- 8APC		_	- VIS	NO.	5	PECIAL						
							COLOR	TRANS (m)	DIR.	FORCE	11.01.0		8 U		DEPTH	OBSE	PVATIONS						
									09	516	+	0 244	2	33 7	14	+-		4					
				1		T		1		1					٠,		1						
	MESSENG	U NO.	CAP		DEPTH (m)	T	*C	S	*/**	51G /	MA-T	ANDMALT-31	ME D'	NYN. A	A. VE	LOCITY	02 ml	// PO4-P	TOTAL-P	NO2-N µg - al .	NO3-N vg - or l	SI O4=SI	рН
	HR 1 10	1						+		+			-	x 10 <sup>3</sup>				-		-	-		-
					0000	2	200	2.5	2.5	7.2	0.0	00.027	۱	0000	, ,	6275							
	23	Q	05:	TD	0000		389 389	35	45 254	23 23		004027	/	0000		5325 5325							
	23		OB:		0009		389		254		80					5326							
		•		T D	0010		389	35		23		004031	9	0041		5326							
				TD	0020		390	35		23		004038		003	-	5328							
			5	T D	0030	2	3 7 2	35	26	23	88	004044	9	012		5320							
	2.3	Q	ОВ:	S	0032	2	392	35	257	23	8.8				1	5331							
			S	T )	0550	2	171	35	UU	24	36	003635	Ü	0198	3 1	5275							
	23	9	0B:		0050		171	-	999	_						5275							
				TD	0075		878	34			8.7	003111	4	028		5196							
	23		05:		0075		878		710		87					5196							
	23	4	08:		0097 0100		750		681	25		0.1341.1	,	0.16.		5162							
			2.	10	0125		735 605	34 34			I ~ 3 7	002814 002651		0350		5158 5121							
	23	Q	08		0143		509		375		49	0020.1	-4	042.		5092							
	2 2		5		0150		465	34		25		002499	9	048		5079							
	23	Q	0 B :		0190		249		055	25						5011							
			5	TD	0200	1	217	34	û6	25	85	002210	Ú	065	7 1	50cl							
				TD	0250		07u	34		26	14	001937	0	071	1 1	4955	)						
	23	9	083		0288		976		095	26	31					4931							
				TD	0300		954	34			33	001761	0	080		4924							
	23	9	0B:		T0383		307		- 22		5.2					4382							
				T D	0400		774	34			56	001545		046		4872							
	23	0		T D	2500 10567		6V8	34	J [ J07		7.8	001336	J	111.		4823 4801							
	23	4	08:	D TD	0600		526 502	34			88	001186	. 5	1438		4801 4797							
				τ⊃	0700		441	34		27		001034		134		4790							
	23	Q	OB.		0742		420		213		16	00.00.				4789							
			S	ΤĐ	0500		401	34	27		23	000922	0	144	7 1	479]							
			5	TD	0300	0	370	34	35	27	3.2	000335	2	1539	5 1	4796	>						
	23	Ç	0В:		T0940		359	34	378	27	35				1	4798	3						
				TO	100ŭ		344	34			40	000761	_	161		4802							
				TD	1100		321		47	_	46	000705		168		4810							
				TD	1200		302	34			51	000000		175		481-							
				TD	1300		287	34			55	000627		182		4831							
				TD	1400		276	34			57	000513	2	168		484.							
	2.3	Q	0 B :	S	T1480	0	270	34	556	2.7	58				1	4853	3						

REFERENCE				F :	MAR	SDEN	STATION T	1ME			OPIGIN	ATOR"	S	DEPTH	MAX		WAVE.	WEA				NODC
TRE ID.	CODE	LATITUE	1 10 L	ONGITUDE	10"	I ARE	MO DAY F		YEAR	CPUISE NO.		TATIO		BOTTON	0.0	- 00	SERVATIONS	THER		-		MOITATE PARMUR
311178	RT	30019		40023W	123				1967	N10	00	2		4755	14	06		x 1	5 6			0002
1,11,0	4					WA		WIND	BAR	1	AIR TE		VIS	NO.	1	ECIAL	1					0000
						COLOR	TRANS, DIR.	SPEED OR FORCE	MET (mb:		ORY ULB	BOT M.E.	C00		OBSER	VA TIONS						
							U8	\$08	20	0 2	50	22	2 7	14							Υ	
	MESSENGE TIME HP 1 10	or NO.	C ARD TYPE	DEPTH Imi	1	·c	s ·/	SIGN	1 A - T		ALY-XI	M E 0.7	∑ △ D DYN. A x 10 <sup>3</sup>	A. SO	OCITY	02 ml/	PO4=P pg + a1/1	TOTAL -P		NO3-N late - gu	SI O4-S ug - at	
			510	0000		.375	3524	23	0.1	0.07	000	6	0000	. 15	321			ļ		1		1
	19	9	OBS	0000		375	35237	23		00.4	.000	0	000		321							
	19		085	0009		372	35238								322							
	- '		STD			372	3524	23		00:	9945	1	(104)		322							
			STO			371	3524	23			1993		0080		323							
			STO		2	369	3524	23	94	003	3991	5	0120	0 15	325							
	19	9	OBS	0033	2	369	35245	23	94					15	325							
			STD	0050	2	2165	3498	24	3.2	003	3632	3	0196	5 15	5273							
	19	9	OBS	0052	ä	141	34956	24	3.7					15	5267							
			STD	0075	]	1854	3473	24	95	003	3039	-	0279	9 15	19.							
	19	9	OBS	0080	1	1816	34710	25	03					15	5179							
			STD	0100	]	1766	3474	25		002	2831	3	035	3 15	165							
	19	Q	085	0103		1756	34747	2.5							166							
			STD		]	655	3458	25			2704		042		5137							
			STD			1531	3440	25		002	2572	6	048		101							
	19	9	OBS	0154		1510	34370								094							
			STD			1239	3406	25		00-	250	9	000		0009							
	19	9	OBS	T0207		1206	34031	25					071		1998							
			STC			1103	3406	26			2022		071		+972							
			S <b>T</b> C			998	3410	26		001	816	-2	081		4941							
	19	9	OBS	0307		983	34108								4936							
			S <b>T</b> C			793	3402	26		001	1574	9	098		¥879							
	19	i Ç	085	T0408		778	34011	26							+875							
			SIE			2607	3402	26		001	1329	5	112		+823							
	19	Q	OBS	10594		)485	34066								4789							
			STE			0482	3407	26			1147		125		4789							
			510			0436	3419	27		0.01	1013	3	135		4788							
	19	9	OBS	0792		0403	34284			0.01			1 "		4791							
			STE			0401	3429	27			1907		145		4791							
			STO			379	3437	27		000	J 8 3 C	18	104		4800							
	19	19	OBS	0982		361	34420								4806							
			STE			357	3443	27			1768		162	-	4808							
			STO			3335	3448	27			0713		169		4816							
			STE			0314	3452	27			3566		176		4824							
			STE			0292	3455	27			1625		182		4832							
	, -		5 <b>T</b> [			0271	3456	27		000	0600	1	189		4840							
	19	9 9	085	T145U	(	0260	34563	27	54					1.2	4844							

	-																		_							_	
REFERENCE	SHIP	LATITU	26	LONG	SITUDE	154 0.18	MARS		STATIC	N TIM		EAR		RIGIN			DEPTH	DEPTH		V	VAVE RVATIONS	WEA	CLOU				DC TION
TRY ID.	CODE	·	1/10		1/10	SMDCT	10*			Y HR.		EMP	CRUISE NO.		LATION UMBER		80110N	S'MPL			GT PER SEA	_ /	TYPE A			NU	A BER
311178	RT	3000		139	597W		122	1		7 1		967	N10	00	3		4531	1		7	3	×1	6 6			1	003
21/11/0	1 15 1	3000	011		2 / 1 11	1	122	WAI		_	ND			IR TEA			NO.	1		<u>'</u>	121	1 11	1 010	2 1			00.1
							1	COLOP	TRANS.	DIR	SPEED	BARC	)• <del> </del>	RY	WET	CODE	085.	OBTERN	CIAL	45							
							ļ	CODE	lm I		FORCE	(mbs	) 8	JLB	BUTB		DEPTHS			_							
										07	S05	20	0 2	39	233	8	14			ĺ							
ĺ	MESSENG	RICAST	CAR	D					Τ.				SPECIFIC	voru	NE 3	A D.	50	UND	_		PO4-P	TOTAL-P	NO2-N	NO3	-N SIO	4-51	
	HR 1/1	ol NO.	TYP		DEPTH I	m1	'	*C	5 .		51G M /	\ _T	ANOM	ALY-11		YN M. X 10 <sup>3</sup>	VEL	OCITE	02 m	nI/I	μg + σ1 'I	FB - 514	μg − al				ρН
	/18 1/1			-+		_											+	-					-		1		
I			S.	TD 1	0000	)	- 2	367	352	2	239	2	003	991	2 1	000	1.5	319									
	19	16	089		0000			367	352		239		00,	/		• • •		319									
		_	S		0010			366	352		239		003	991	5 0	040		320									
	19	6	OB:		0010			366	352		239							320									
			S	TD	0020	J	2	366	352	c'	239	3	003	994	3 0	080	1.5	322									
			5	T D	0031	)	2	365	352		239	3	003	947	) (	120		323									
	19	16	0B:	S	0034		2	365	352		239	3						324									
				TD	005			128	350	-	244		003	513	9 (	195		264									
	19	6	OB:		005			031	349		245							252									
				T D	007			939	349		248		003	115	ď C	278		216									
	19	6	0 B		008			892	348		249							203									
				T D	0100			809	348		251		002	860	o (	352		182									
	19	6	OB		010			778	348		252		00-	25.				174									
				TD	012			732	347		252			754		423 490		162									
	19	1.6	0B:	T D	0150			640 594	346 345		253 254		002	649	4 .	490		5124									
	17	0		TD.	0200			329	341		257		00/	327	7 0	615		041									
	19	96	OB:		1021			252	340		258		002	, ,				016									
	• ′			T D	025			132	340		260		002	045	5 0	724		1989									
				TD	030			989	340		262		001	818		156		+937									
	19	16	OB:		031	8	Ü	944	340	75	263	4					14	•923									
			S	ΤD	0400	0	0	791	340	1	265	3	001	578	4 0	1940	14	87o									
	1.9	96	OB:	S	T042	2	0	753	340	0.3	265	8					1.4	+867									
				TD	050			619	340		267			352		137		+827									
				T D	0601			491	34		269		001	165	4 ]	603		1793									
	19	6	OB.		T061			474	340		269					2 - 2		789									
				TD.	0700			436	341		271			058		373		788									
	1.0			TD	080			399	342		272		000	919	( )	473		790									
	19	6	OB:		082			391	342		272		000	037	. 1	650		+ <b>79</b> 2 +799									
				T D	100			378 360	343 344		273			837 772		558 538		+799 +809									
	19	16	0B:	TD s	T103			353	344		274		900	112	۷ .	020		+813									
	7.7	70		o TD	110			341	344	_	274		000	731	я 1	713		+618									
				TD	120			323	344		274			700		785		+828									
				TD	130			304	345		275			668		854		+837									
				TD	140			286	345		275			636		714		846									
				TD	150			267	345		275			564		731		4955									
	19	96	08		T158			250	345		276		000		- 1	1		4862									

ODE NO.	CODE	LATITU	DE LO	NGITUDE E	MARSDEN SQUARE	STATION TO		YEAR		TATO TATS MUM	ON	DEPTH TO BOTTOM	DEPTH OF S'MPL	OBS	WAVE ERVATIONS HGT FER SE	WEA- THER CODE	CLOUD CODES			NODC STATION NUMBER
311178	RT	2943	N 1	4034 W	087 90	10 18 0	043 1	967	N10 00	4		4297	15	34	3	X1	6 4			0004
					WA	TER V	VIND	BARO	A IR TE	M.P *		NO.		<u> </u>	1 - 1	1	, 0, 4	'	1	000.
					COLOR	TRANS DIR.	CHEED RO	METER	DRY	W		OBS. DEPTHS		CIAL VATIONS						
					CODE	-	FOPCE	(mbs)	-+	BU		10011113								
	,			,		06	515	230	239	2.	28 8	14								
	MESSENGR TIME C		CARD	DEPTH (m)	1 °C	s */	SIGM	T = 4	SPECIFIC VOLI		₹ A O	sou	DNI	O ; m1/1	PO4-P	TOTAL-P	NO2-N	NO3-N	\$104-5	
	HR 1/10	NO.	TYPE			' "	3,0,11		ANOMALY-I	10'	x 10 <sup>3</sup>	, AETO	CITY	0. 11171	µg - 01'1	yg = 01/1	μg = at ')	μg = at/1	νg - οΙ	
																				_
	1	, 1	STO	0000	2381	3527	239	2	003995	1	0000	15	323		1 1			ı		1
	0.43		OBS	0000	2381	35268	239	2					323							
	043	3	OBS	0009	2373	35271	239						322							
			SID	0010	2373	3527	239	15	003974	-1	0040	15	322							
			STD	0020	2372	3527	239		003977	_	0080		324							
			510	0030	2371	3527	239		003980	) U	011		325							
	0 4 3	3	OBS	0032	2371	3526h	239						326							
	0.43		STD	0050	2072	3503	246		003354	3	0193		247							
	043	,	OBS	0051	2059	35017	246						246							
	043		STD OBS	0075 0078	1873 1855	3493 34921	250		002939	8	0471		197							
	043	)	STD	0100	1753	3486	250		00:31	_	0.14.0		193							
	043		085	0100	1753	34862	253		002714	-0	0342		166							
	0 4 3	,	510	0125	1627	3461	253 254		00212	. 7	0/06		166							
			STD	0150	1493	3439	255	-	002620		0409		129 089							
	0.43	,	OBS	0150	1493	34385	255		002503	14	0473		089							
			STD	0200	1200	3403	258		002200	7	0590		995							
	043		OBS	T0201	1195	34025	258	-	002200	,	0-70		994							
			STD	0250	1071	3408	261		001946	. 1	3694		959							
	043		OBS	0299	0961	34091	263			-			027							
			STD	0300	0959	3409	263	3	001761	7	0787	14	026							
	0 4 3		OBS	T0398	0781	3400ö	265	4					874							
			STD	0400	0777	3401	265	5	001560	8	0953	14.	873							
			STD	0500	0604	3403	268	()	001321	1	1097	14,	822							
	043		OBS	T0591	0493	34043	269	5				14	792							
			STD	0600	0488	3405	269	6	001169	2	1422	14	791							
			ST0	0700	0440	3416	271	J	001040	2	1332	14	789							
	043		OBS	0790	0406	34255	272					14	791							
			S <b>T</b> 0	0800	0404	3427	272		000925		1+30		792							
			STO	0900	0380	3436	273		000839	13	1519		800							
	043		OBS	0983	0361	34419	273						8 .17							
			STD	1000	0357	3443	274		000768		1599		809							
			STO STD	1100 1200	0335	3449 3453	274		000706		1673		816							
			510	1300	0314 0293	-	275		000659		1741		824							
			STD	1400	0273	3456 3456	275 275		000619		1805		833							
	043		OBS	11451	0213	34562	275		000602	4	1866		841 845							

					,,		,							,		_		1									-
REFERENCE	SHIP	LATITU	DE	LONGITUDE	DRIFT	MARSD	PE	STATION TIV		re ar	_		ATOR'S		DEPT		DEPTH		W DBSER	A VE	NS.	WEA-	CTC	DES			NODE
TRY ID.	CODE	•	1/10	1.10	la s	10*		MO DAY HE			CRUISE NO.		TATION UMBEI		BOTTO		OF S'MPL'S			GT PER		CODE	TIP				4 U ºº BER
311178	RT	2949		14013 W	+				-	967	NIU	Ú0	5		430	ų	14	0	7	3		×1	н	2			000
3 2 2 2 . 0	1 [		1		1 1	1	WAT		INO		1	IR TEA	_	7-1	NO.	-1	-		٦'	1 - 1		1 // 1	1 0				000
						c	OLOR		SPEED	METE	) <del>-</del>	RY	WET	VIS.	085	. 1.	SPEC SBSERV	CIAL ATION	15								
						(	3000	(m) DIK.	FORCE	(mbs	) 80	JLB .	BULB	$\perp$	DEPTH	15											
								06	509	24	0 2	50	239	8	14												
1	MESSENGR	CAST	CARD				to.				SPECIFIC	VOLU	ME	5 A D	5	oun	10			PO4-1	P 1	OTAL-P	NO <sub>2</sub>	- 11	NO <sub>3</sub> =N	5104+5	
	TIME ::	약 NO.	TYPE	DEPTH	(m)	1	C	s 1/4.	SIGM	A -1	ANOM	ALY-X1	0,   [	ΣΥΝ. Μ * 10 <sup>3</sup>	1. VI	ELOC		03 11	11/1	yg · at		yg = at/l	pg -		1110 - QU	μg - at	pH
	NK 1210	1		+				-	-				-		+		-				+			_			-
	l	1	ST	່ວ່ວບວ	0.0	23	64	3529	239	0 1	003	931	6 1	0000	, ,	53	10				-						
	188	a	OBS	000			64	35290	239		000	,,,,			_	53											
	188		250	000			64	35286	239							53											
			ST				64	3529	239		003	938	6 (	0039		53											
			ST				65	3528	239		003			0079		53											
			ST	003	0	23	66	3528	239	8	003	954	7 (	116	3 1	53	24										
	188	3	OBS	003	3.2	23	66	35280	239	7					1	53	24										
			ST				22	3498	244	. 4	C 0 3	522	8	193	3 1	52	62										
	188	3	OBS	005			22	34976	244							52											
			ST				180	3478	249		003	065	5 (	275		51											
	188	9	OBS	007			58	34764	249							51											
	10		ST				49	3473	252		002	802	1 (	340		51											
	188	9	OBS	010			49	34728 3461	252		06.1					51											
	188		STI OBS	0 0 0 1 2 0 1 4			57	34464	253 254		002	000	8 (	0 4 1 7		51 51											
	100	5	ST				39	3445	254		002	553	2 (	)48:		51											
	188	3	OBS	T019			45	34053	257		002	223	- '	, 10.		50											
	• • • •	-	51				42	3405	257		002	261	6 (	0603		50											
			ST				85	3407	261		001			70		49											
	188	3	OBS	029	5	0.9	64	34080	263	1					1	49	27										
			ST	030	0	0.9	53	3407	263	2	001	766	7 (	060	3 1	49	24										
	188	3	085	T039		0.7	56	34004	265						1	48	64										
			ST				50	3401	265		001			1961		48											
			ST				92	3402	268		001	307	7	1109		48											
	188	3	085	T058			95	34039	269							47											
			ST				87	3406	269		001			123		47											
	100		ST				38	3418	271		001	023	1	1342		47											
	188	5	OBS	077			0.7	34262	272		20.1	012	,	1 / 2 0		47											
	188		51				00	3428	272		000			1438		47											
		a	STI OBS	090			72 53	3437 34420	273 273		000	022	1	1525		47 48											
	100	J	ST				46	34420	274		000	756	н	1604		48											
			ST				22	3446	274		000			1678		48											
			ST				102	3449	275		000			1741		48											
			ST				83	3452	275		000			101:		48											
			ST				68	3455	275		000			1879		48											
	188	8	OBS	T145		0.2	61	34564	275							48											

REFER	ENCE					a l	MARS	DEN	STAT	ION T	im.E			ORIG1N	ATOR'S		DEPT	TH I D	AAX, EPTH		WAVE	WEA				NOD	
CTRY	ID.	CODE	LATITU		LONGITUDE	PPIF	SQU.			GMTI	2 2 (20	YEAR			TATIO		10	·	OF MPL*S		HGT PER S	CODS				STATI NUMI	DN BER
			2050	1/10	1.10	+ +	10.		-		1.0.0	1067	+-				3 ( 5		-				1	+	-		- (
3 1	1178	RT	2959	4N	140060W		087	90 WAT			189	1967	1	AIR TEA	_	_	365		16	35	2 3	X ]	8 3	1	- 1	00	0.61
							+	COLOR	TRANS.	-	SPEED	- BARG		DRY	WET	VIS.	, O85		SPEC	IAL							
								CODE	IRANS.	DIF.	FORCE	{mbs		BULB	BULE		DEPT	H2 OB	25KAN	1110112							
							1			05	509	24	0	250	22	2 7	14	•									
		MESSENGE									1	,		ECIFIC VOLU		≥ ∆ o	Ή,	SOUND			PO4-P	TOTAL-F	NO2-N	NO3-N	5104-		
		TIME	LCAST NO.	TYPE		(m )	T	,C	S	٠/	SIGN	A A T		NOMALT-I		X 10 <sup>3</sup>		ELOCII		0 g m1/1	μg = a1'	ا/اه - ولا		ug - at/l	na - as		pН
•		HR 1 10	-						-		+		-		+		+-		+		+					+	
				   ST	D 000	Ω	2	367	35.	27	23	9.7		003951	5	0000	1	1531	9			1	1			,	
		189	2	OBS				367		274	23		`	002.71	-	0 - 0 0		1531									
		10.	,	51				360	35		23		(	0ú3936	5	0039		1531				4					
		189	7	OBS				360		273	23		`					1531									
				51				362	35		23		(	003990	6	0079		1532									
				ST				363	35		23			004035		0119		1532									
		189	7	085				364																			
		-		ST		U		023	35	05	24	76	(	003214	8	υ192	2 1	1523	86								
		189	<del> </del>	OBS	005	3	1	976	34	940	24	80Q															
				51	D 007	5	1	827	34	92	25	16	(	002837	0	026	7]	1518	34								
		189	<b>\$</b>	OB5				792		83Q		18⊍															
				51				740	34		25		(	002736	3	033.	7 ]	1516	1								
		189	3	OBS				714	-	8U9		35Q															
				5 <b>T</b>				613	34			49		002538		040		1514									
				5.1				477	34		25		(	002327	7	046	4 4	1508	66								
		189	3	OBS				424		31 Q		640							_								
			_	51				214	34	30	26	11	- (	001962	5	057	1 1	1500	15								
		189	7	035				155	2.		3.6	٠.		001011		2/	. 1	1 ( 0 .	-								
				SI				083	34 34		26 26			001841		0666 0756		1496 1493									
		189		5 T 0 B S				983 939		19 193		37		001771	)	0750		1492									
		10,	7	51				777	34			55		001557	0	092		1487									
		1.07	-					717		997				001001	_	0,2		1485									
		189	4	089 51				619	34			78		001345		1068		1482									
				5 I				504	34		26			001343		119		1479									
		189	2	0B5				466		111	27			001100	7	L 1 "		1479									
		10	•	5 <b>T</b>				441	34		27			001054	U.	130		1479									
				5 T				403	34			22		001034		140.		1479									
		184	3	0BS				385		20 316		28		000771	5	2 . 0		1479									
		10		51				378		35	27			000844	4	149		1479									
				51				360	34			39		000779		157		1480									
		189	9	OBS				347		460		43						1481									
				51				342	34		27			000732	2	164		1481									
				ST				324		49		48		000702		171		1482									
				51	0 130	Ü	0	305	34	51	27	51		000671	1	178	8	1483	37								
				5 <b>T</b>	D 140	) U	0	287	34	53	27	54		000640	0	185	4	1484	+6								
				51	150	Ü	0	269	34	55	27	58		000609	3	191	6	1485	6								
		189	Q	OBS	T163	3 3	0	245	34	581	27	62						1486	8 c								

FERENC	_	SHIP					<u>*</u>	MARS		STAT	ION TI				(	DRIGINA	ATOR'S		DEPT	H O	AAX. EPTH		WAV	E	WE		CLOUD			NODC
Y ID		CODE	LATITU	DE 1/18		ONGITUDE 1, 10	NDC	2001	ARE 1°	MOT	GMTI		YEAR	LK	UISE NO.	51 N	TATION	N R	BOTT		OF APL'S		SERVA"		, thi		CODES			STATION
111	$\rightarrow$	R T	3001		-	43015w	-	123	UU				196	_	110				440		15	35	1	3	-	-		1		
111 1	, 0		J001		1 1	.400128	i	120	WA			IND	1	_		AIR TEN			<del>'</del>		1 )	32	1 1.	۱ د	X	.	8 2	1	1	000
									COLOR	_		SPEED		ETER	-	DRY	WET	- VIS	4 OF2	- 0.	SPEC	IAL ATIONS								
									CODE	(m)	DIR.	OR FORCE		nbs)		ULB	BULS		DEPT	HS		4110143								
								- 1			08	SÚ5	2	60	2	39	22	8 8	14											
		MESSENGR TIME ( HP 1:10	CAST NO.		A R D Y P E	DEPTH (	m1	T	*c	5	٠	SIGM	A – T			VOLUA ALY-X10	A E   1	≨ △ D DYN, A x 10 <sup>3</sup>	À. 🗸	SOUND		0 2 m' '		4=P	TOTAL-		NO2=N µg = at 1	NO3=N pg - at 1	51 O4-	
	1									1																				i
					STÜ				366	35		239		0	03	943	5	0000		532										
		18:	3		ВS	000			368		289	239								532										
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	CODE N	. COOE	•	- 1							, E M K						.   OF	: 1										STATION NUMBER
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NCE ID.	SHIP	LATITUI		LON	GITUDE	DRIFT	MARS	RE		ION T		YEAR	CRUIS ND		STAT		DEP TO BOTT	0 0	TH O	WAVE BSERVATION	5 ;	WEA- THER CODE	CLOUD		5	NODC TATION TUMBER
NO.	5551		3/10		1/10	-	10*	1.	MO		4R,1/10			+		11001	-							+		
178	RT	3005	N	14	007 W		123	00	10	23	229	196	7 N 1				44.	3/ 1	6 3.	3 4		<b>x</b> 5	5 6		1	0003
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										14	51	2 2.	10	228	1	_	1	-	_						T	T
	MESSENG TIME HR 1/1	of NO.	C A TY		DEPTH I	lm I	Ť	°C	5	٠/	SII	GMA-T		FIC VOL		∑ ∆ E DYN. 7 x 10 <sup>3</sup>	и.	VELOCITY	0; m	1/1 PO4-P		A L = P - 01/1	hd - at (		\$1 D4 - \$1 yg - at.	рН
													1 20	107		000	0	15322						1	1	
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	2.2	9	O E		000		_	376	_	281		395	0.0	394	. 0	004		15320								
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	22	29	0.5	_	001			364		277		398	0.0	344	65	007		15322								
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	~ ^			STD	003			362		277		398	0.0		0 1	0 - 1		15324								
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	22		0 i	STD	005			035	-	977		467			-			15239								
	24	2.4		STD	007			842		88		509	3.0	290	17	027	1	15188	3							
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				STD	020	Ü		320		+24		578	0 (	227	36	059	1	15039								
	22	29	08	BS	1021	8		236		+13		587						1501.								
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	- 2	29	0	BS	15	800	(	242	3	<b>→</b> ⊃ 0	· ·	2104														

PEFEPENCE			T	_ <u>«</u>	MAR	SDEN	STAT	ON T	IME			ORIGI	NATO	R*S		DEPTH	MAX.			VE.		WEA-	CLOU	0		NODC
CIRY ID.	CODE	LATITUDE		NGITUDE E	UQ2	APE	(1	SMT)		YEAR	CRU1		STAT		$\exists$	MOTTOS	DEPTH OF		SERV	A TION		THER	COD	S		STATION
311178	D.T	30038N	+	11/10 = 009 W	123	+			1 H 2	106		+	NUM	95%	+		3 MIPE 3	<del>                                     </del>		T PER	SEA		TYPE A	1	-	
91/11/0	RI	30036N	1 14	1004 M	123	WAT		_	182   WIND	196	-	O O		*c T	_	4369	16	3 3	1	3	I	X 5	8	3	1	0010
						COLOR	_	DIR.	SPEED		PO- TER	DRY	-		VIS CODE	NO. OBS.	SPE( OBSERV									
						CODE	(m-)		FORCE	(m	bsl	BUL8	81	1.8		DEPTHS										
								13	503	- 2	0.3	228	1 2	28	7	14										
	MESSENGR TIME HR 1/10		ARD YPE	DEPTH (m)	Т	°C	2	٠	SIG	M A —T	SPECI	FIC VOL	UME		∆ D 1, M. 10 <sup>3</sup>		DCITY	02 ml/		PO4~P		0 TA L = P	NO2-1 ug - at	NO3-N ug - ot/		
					,		1												$\top$		+				_	-
			STD	0000	2	359	35	27	23	98	υσ	393	56	00	00	15	317		1							,
	182	2 0	BS	0000	2	359	358	265	23	98							317									
			STD	0010		359	352			99	00	393	56	00	39		319									
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			STD	0020		359 360	352 352			98 98		394 394			79 18		321 323									
	182		BS	0035		360	352			98	00	J 7 4	13	01	10		323									
			SID	0050		087	350			55	0.0	341	46	01	92		253									
	182	2 0	BS	0054	2	030	349	956	24	67							238									
			STD	0075		871	350		25		0.0	2686	54	02	71	15	198									
	182		65	0084		823	350			25							185									
	100		STD	0100		78J	349			30	0.0	271.	2.8	03	41		175									
	182		BS STD	0108 0125		757 718	349		25	33	0.0	41.6	2.7	3.6	0.0		169									
			STD	0150		633	34			47		2650 2561			08 7±		159 136									
	182		BS	0163		576	346			53	01.	2,01	, ,	٠.	' -		120									
			STD	0200		334	34			77	0.0	2286	5.3	0.5	94		043									
	182	2 0:	BS	T0217	1	242	341	139	25	BE.						15	014									
			STD	0250	1	138	34	12	26	0.4	0.0	203	42	0.7	0.2	14	983									
			STD	0300		000	34			26	0.0	1829	9.1	0.7	99		941									
	182		BS	0323		943	340		26								924									
	101		STD	0400		793	340			53	00	158	1 4	0.4	69		879									
	182		BS STD	10430 0500		740 628	340			60	0.0	197			1.7		864									
			STD	0600		504	340			76 95		1364			17		831 798									
	182		BS	T0639		468	340		27		UU	110	1 4	1 4	44		790									
	101		STD	0700		440	341			15	DC.	1040	0	1.4	55		789									
			STD	0800		401	342			23		072.			53		791									
	182		BS	0852		385	343		27		- 0		-	-			794									
			STD	0900	0	373	343	36	27	33	0.0	083.	12	15	41	14	797									
			STD	1000		354	344			39	0.0	077.	2.7	10	21	14	807									
	182		BS	T1065		347	344		27							14	815									
	182	2 01	BS	16149	Ü	248	345	81	27	62																

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REFERENCE	SHIP	LATITU	0.	LON	GITUDE	E 5	MAR	SDEN	STATION IGMT	TIME	YE	AR			1. LO 8.2		DEPTH CT	MAX. DEPTH	. 08	WAVE SERVATIONS	THE		CLOUD			NODC '	1
CODE NO.	CODE		1/10	LON	1.110	INDCT	10.		MO DAY			~ ~	CPUISE NO.		ATION UMBER		BOTTOM	S'M.PL'		THIST PERT SI			TYPE A NO			JMBER	
31117	8 RT	3005		1.6	0123W		123	++		198		16.7	N10	ij1:	1		4023	16	30				815			0011	
( )1 11(	ol KI	5005	JIN 1	14	OIZJW	1 1	14.	WA		WIND	+ +-		AIF		LP °C	T	T		-	1 ,	. ^	Ι (	012	,		0011	
								COLOR		SPE	ED ]	BARO METE	-		WET	CODE	NO. OBS.	SPE OBSERV	CIAL								
								CODE	TRANS. DIR	FOR	4	(mbs			BULB	1000	DEPTHS	003664	* 110.43								
									18	51	2	23	7 24	4	233	7	14										
	MESSENG						Т	L.——			-		SPECIFIC V		5	20		UND		PO4-P			NO2-N	NO3-N	5104-51		- 5
	1150.6	및 NO.	CAI		DEPTH	(m)	1	*C	s */	51	GMA.	-T	ANOMA		, D'	rN. M 103		OCITY	0.2 mH/	PG 2 = 1			ug = al/1	40 - 0t l	μg - at I	pН	15
	HP 1/10	-			-		+		+			-+			-	. , ,	_	-		+		+					
							١.		25.22				0030				1 1	2.25									
		_		TD	000			386	3538		399		0039	31.	5 0	Ú 0 C		325									
	19	8	08	TD	000			386	3537e	_	399		0039	26	2 0	039		325									
	19	۵	08		001			386	3537t	_	390		0039	20.	2 0	0 3 9		327									
	1,	0		TD	002			386	3537		300		0039	40	1 0	079		328									
				TO	003			385	3537		390		0039			118		330									
	19	8	ОВ		003		i	385	35369	2	390	,					15	330									
			S	TD	005	0	2	184	3517	2	44]		0035	40	0	143	1.5	260									
	19	8	08	5	005			162	35146		445							275									
				TD	007			973	3506		49(		0030	90	6 0	£76		227									
	19	8	ОВ		003			932	35032		498							215									
				TD	010			1829	3490		514		0028	64	b 0	ر 5 <b>د</b>		188									
	19	8	08		010			1806	3487		518							182									
				TO	012			177ú	3467		520		0027			421		175									
				TD	015			1692	3479		539		J026	46	5 0	486		155									
	19	8	08		015			1664	34756		543		0023	0.5		614		070									
	19	0	06	TD	020			1411 1354	3432 34234		566		0023	79	o U	014		0.52									
	19	0		10	025			177	3417		60		0020	6.7	8 0	726		997									
				TD	030			997	3410		62		0018			823		940									
	19	8	08		031			968	34084		63			-				931									
				TD	040			807	3402		65		0015	94	8 J	993		885									
	19	8	08	S	1040	9	(	792	3401	3 2	65	3					1 4	880									
			S	TD	050	O (	(	629	3402	2	676	0	0013	58	5 1	141	. 14	832									
			S	TD	060	Û		500	3407		696	>	0011	68	9 ]	267		795									
	19	8	08		060			)495	3407		69							795									
				TD	070			1446	3416		71		0010			378		792									
		_		TD	080			405	3429		724		0009	11	9 1	4 75		793									
	19	8	05		080			402	3429		724		0000			٠		793									
				TD	090			381	3437		73.		0008			562		801									
	19	В	08	TD.	100			)359 )358	3443 3443		740		0007	+ 1	1 1	642		809									
	17	0		TD.	110			338	3446		744		0007	732	n 1	717		817									
				TO	120			318	3449		74		0006			789		826									
				TD	130			299	3451		75		0006			857		854									
				TD	140			262	3454		75		0006			922		844									
				TD	150			265	3456		75		0005			983		854									
	19	8	08		T155			256	3457		76						14	859									

	,		. ,									PIGIN	ATDR'S	_		MAX.		WAVE	WFA-	CLDUD			DDC
CTRY ID.	SHIP	LATITU	DE	LONGITU	DC 18	MARSDEN	SIA	TION T	WE	YEAR	CRUISE	S	TATION	-	DEPTH TD	DEPTH		ERVA TIONS	THER	CODES	Ì	l ST	ATION
CODE NO.	CODE	•	1/10		1/10 ° ₹	10" 1"	MD	DAY	R.1/10		ND.	- 1	UMBER		BOTTOM	S'MPL'S		HGT PEF SEA	CODE	TYPE A.M.1		- INC	J.M.BER
311178	RT	3000	1N	14009	53W	123 00	10		_	1967					4390	43	33	2 3	X1	8 1		- 1 -	0012
							TER	٧	IND	BARG	)- <del> </del>	IR TE	_	VIS	NO.	SPEC	IAL						
						COLO		D1R.	SPEED OR FORC			DRY UL8	WEI	CODE	DEPTHS	OBSERV	A TIDNS						
							+	13	502	` —		56	233	7	20								
							+	110	302				· · · · · · · · · · · · · · · · · · ·	L				T			110 11	41.0	
	MESSENG TIME	CAST NO.	CAR		EPTH Imi	T °C		•/	SIG	M A - 1	SPECIFIC	UJOV :	07 D	△ D N. M. (10 <sup>3</sup>		DCITY	O 2 m1/1	PD4=P	1014L=P ug = 01/1		NO3→N µg - al/l	\$1 D4 = \$1 ug = ot/1	pН
	HR 1/10	1	1			ļ	-							10-	+	+							
			1	_	0000	224.5	2.0	1.	1 22	94	002	975	2 0	000	1.5	313		1	ı			ı	- 1
		-	S1 063		0000 0000	2345 2345		16 156		194	003	910	2 0	000		313							
	18	5			0010	2345		16		394	003	979	8 0	U40		314							
	18	5	089		0010	2345		155		394						314							
	10				0020	2348	3 5	17	23	394	003	982	0 0	080	15	317							
					0030	2350	3 5	18	23	394	003	984	1 0	119		319							
	18	5	OB:		0030	2350		179		394				Le		319							
					0050	2179		00		+30	003	652	6 0	196		277							
	18	5	OB:		0050	2179		004		+30	0.0	0.011.7	0 0	, , , ,		277							
		_			0075	1820	_	70		501	002	983	0	479		179 179							
	18	5	OB:		0075	1820		695		501 523	00.	777	4 0	351		156							
	1.0				0100 0100	1727 1727		169 1692		523	002	. / / /	0 0	J 5 1		156							
	18	0	08:	-	0125	1631		+56		536	003	665	۸ ۵	419		130							
					0150	1515		+42		551		2524		484		096							
	18		0B:		0152	1505		+405		552	002	. ) 2 4	. 1	11)4		093							
	10	10			0200	1216		11		589	002	171	5 0	601		0002							
	18	6	0B:		0205	1192		1094		592	001			- 0 -		994							
	10	10			0250	1090		10		512	001	962	1 0	704		966							
					0300	0978		11		534		775		798	14	934							
	18	5	OB:		0305	0967		114		534					14	930							
		-			0400	0757	34	•00	26	557	001	1536	2 0	963	3 14	865							
	18	15	08	s T	0405	0747	3	3996	2.6	558						862							
			S	TD	0500	0601	_	+∪1	_	579		1329		107		820							
					0600	0490		+∪6		596	001	1164	2 1	231		792							
	18	15	OB		0607	0484		4061		597						+791							
					0700	0440		417		711		1032		341		+789							
	_				0800	0402		427		723	000	923	52 1	439		+791 +792							
	18	35	08		0805	0400		+275		723	001	.22	70 1	527		+792 +799							
				TD TD	0900	0378 0356		436 443		732 740		7837 1769		607		+807							
	3.0		0 B	TD T	1000	0356		+42 4427		740 740	000	,,0,	-0 1			+807							
	18	9 9		10	1100	0336		446		744	000	0729	7 1	68.		816							
				TO	1200	0316		449		749		069		75		4825							
				TD	1300	0298		452		753		1654		82	1 14	4834							
				TO	1400	0281		454		756	000	0626		88		4844							
				TO	1500	0266		456	2	759	000	0599	99	946	5 14	4855							
	18	35	0.8	s T	1517	0263	3	4564	2	759						+856							
			S	TD	1750	0232		459		764		J55(		2090		4883							
				TD	2000	0205		462		769	000	050	72 8	222.		4914							
	2.	39	ОВ	-	2245	0185		4637		771				17		4947							
				TD	2500	0171		465		774	00	046	13 1	464		4985							
	2	39	08	-	2719	0162		466]		775	00	0.6.7.	. c	160		5019							
	_			TD	3000	0155		467		776	001	0444	+0 4	269		5064 5103							
		39	08		3233	0151		4669 4679		<b>7</b> 77 778						5196							
	2.	39	OB	15 I	4000	0148		467 468		777	0.0	045	3.7	3140		5237							
	2	39	08		4237	0151		467:		777	00	- 11.				5280							
		39 39	0.0	-	42700			4683		778					_								
	۷.		0.0			. 019			_														

EFERENCE	SHI	p			# MAF	RSDEN	STATION TI			DI	RIGIN	ATOR'S		DEPTH	MAX		WAVE	WEA	CLOUD			NODC
RY ID.	Lon		1/10 L	ONGITUDE 1/10	10°	J ARE	MO DAY H		YEAR	CRUISE NO.		TATION IUMBER		10 401108	0.5	1	HGT FER S	THER CDDE		7		TATION UMBER
31117	8 R1	2959		40147W	08				967	N10	01	3		4389	15	3.2		×1	86			0013
-,			. ,	-		WA		VIND	BARO	1 41		AP. ℃	T	NO.	1,	-	]	,			,	001
						COLOR	TRANS. DIR.	SPEED	METER	R DR		WET	CODE	0.05	Caccas	VATIONS						
							10	SO7	25			233	7	14			1					
							1.0		1						_		1		T			
	HR 1	NGR CAST	TYPE	DEPTH (m	17	T *C	5	SIGM	T-A	SPECIFIC		ME D	△ D (N. M. ( 10 <sup>3</sup>	. AEF	OCHY	O 2 m1/	PO4~P µg = at/1	10TAL=P ug = a1/1	NO2-N µg - at/l	NO3-N yg - a!/l	νς - ο1/1 ΣΕΟ 4−5ι	рН
				2222		2010	0.530					_		1								
		100	STO	0000		2348	3519	239		0039	61	9 0	000		314							
		180	OBS			2348	35186	239		0020	16.3	7 0	0,0		314							
		180	S <b>T</b> 0	0010		2347 2347	3519 35185	239		0039	103	1 0	040		315							
		100	510			2350	35185	239		0039	0.60	a n	079		318							
			5 T C			2353	3520	239		0039			119		320							
		180	OBS	0031		2353	35202	239		003.		0 0	- 1 /		320							
			STO			2040	3488	249		0033	381	0 0	193		239							
		180	OBS	0051		2026	34872	246			_				235							
			STD	0075		1790	3473	25	11	0028	887	8 0	271	15	171							
		180	OBS	0076		1784	34729	25	12					15	169							
			STO	0100		1732	3480	253	30	0027	710	6 0	341	1.5	159							
		180	OBS	0102		1727	34806	25							158							
			STO			1657	3471	254		002t			407		139							
			STD			1553	3458	25		0024	88	4 0	471		110							
		180	OBS	0154		1534	34550	25							104							
			STO			1246	3417	258		0021	163	4 0	588		013							
		180	OBS	10208		1206	34120	259							000							
			STO			1086	3412	26		0019			691		964							
		100	STO	0300		0962 0944	3410 34094	263		0017	159	2 0	784		927							
		180	08S ST0			0781	34094	261 261		0015	6.2	7 0	950		875							
		180	085	T0410		3765	34008	269		001.	000	, 0	,,,,		870							
		100	STD			0614	3401	26		0013	146	1 1	095		825							
			STO			0493	3406	26		0011			221		1793							
		180	OBS	T0612		0482	34067	269				•	1		791							
			STO			0440	3417	27		0010	32	8 1	331		+789							
			STO			0402	3428	27.		0000			429		+792							
		180	OBS	0817		0397	34291	27.							+792							
			STO	0900	) (	0381	3436	27	3.2	0008	340	5 1	516	14	800							
			STE	1000	) (	0363	3442	27	38	0007	783	1 1	598	14	810							
		180	OBS	T1030	) (	0357	34439	274				_			813							
			STO	1100	) (	0344	3448	27	45	000	724	2 1	673	14	+820							
			STO	1200	) (	0325	3452	275	50	0006	579	7 1	743	14	829							
			STD	1300	)	0306	3455	27	54	0006	542	1 1	809	14	838							
			STE			0287	3457	27		0006			d72		+347							
			STO			0268	3457	279		000	594	9 1	932		856							
		180	085	11519	) (	0264	34573	276	60					14	857							

*********			-		T	-								-		1	4 A V T									
TRY ID.	SHIP	LATITE	J DE	LONGITUDE 125	MARS	DEN ARE	STA	TION T	3 1/1	YEAR		ORIGINA			DEPTH	, DE	AAX.	OB	SERV.	VE A TIONS	THER					NODC
ODE NO	. CODE		1, 10	1/10	10*	110			P.1 10	1,714	CRUIS		OITATION		80110		OF L	DIR		PEP SEA	000					NUMBER
31117	78 RT	3000		140000W	123	00				1967	NI	0 014	4		4206	-	17	3.3			X 2	-	8			0011
					1	WA			VIND	т —		AIR TEN		$\top$	NO.	7	1/		12	1 - 1	1 12	1 0	0		[	0014
					1	COLOR	-	D1R.	SPEED	METE		DRY	WET	VIS.	085.	085	SPECI	AL TONS	1							
					[	CODE	Iml	DIK.	FORCE	(mbs		BULB	BULB		DEPTH	s ou.	30, 14									
								10	516	23	0 .	239	21:	1 7	14				1							
	MESSEN		T		T		+		T				T.	5 A D	١	-			1				_			T
	TIME	GR CAST	CAPD		T	*C	5	٠	SIGN	A-T		IC VOLUA		YN.	r VEI	DUND.		) 2 ml/		O4-P	101A L=1 1 10 + gu	NO2-		NO <sub>3</sub> -N ug + at l :	\$1.04=\$   pg = of	рН
	HR 17	10	1		+				+				+	χ 10 <sup>3</sup>			+		+	-		-	-	20 000	-	-
			ST	0 2000	3	26.	35	27	231	۱ ا	0.0	2010	,				_									
	0.4	40	085			356 356		260 260	23		UU	3930	- (	0000		531										
		40	085			358		261	23							531										
	٠.	+0	ST			358	35		23		0.0	39386	5 (	039		531 531										
			5 T			357	35		23			39349		0075		534										
			ST			356	35		241			3930:		1116		532										
	0.4	40	085			356		280	240		(1	J 1 J U .	- (	, . 10		532										
	-		ST			351	34		24		0.0	34090	5 6	191		524										
	0.4	<b>4</b> O	OBS			037		867	24				,			523										
			ST	D 0075	1	818	34	67	240	<b>9</b> Q	00.	2997.	2 (	272		517										
	0.4	<b>+</b> 0	OBS	0079	1	794	34	658	251	14						517										
			\$1	D 0100	1	739	34	67	25	18	00	68248	В	344	13	515	9									
	0.4	<b>+</b> 0	085			728	34	66t	25.	1					1.5	515	7									
			ST			595	34		25			26519		0413		511	8									
			ST			455	34		25		00.	24938	В (	477		507										
	0.4	40	085			433	_	267	25							506										
	0		ST			203	34		251		00.	21989	) (	1594		499										
	0 4	+ U	085			183		023	258							99										
			ST			085	34		260			19828		0699		+96										
	0.4	. 0	ST 035			980 964	34	115	26: 26:		00	17828	4 (	793		493										
	0.	+0	ST			783	34		26		0.0	15593	2 /	960		493) 487										
	0.4	40	085			771		011	265		00	12293	) (	7760		•o≀ 487.										
	5 -		ST			516	34		26		0.0	13316	5 1	105		40 () 482)										
			ST			495	34		269			11729		230		479.										
	0.4	<b>+</b> 0	OBS			485		059	26							+79										
			ST	0700		436	34	18	27		00	1020	7 1	340		÷78										
			ST			393	34		272			08980		436		+78										
	0.4	0	085	0810	0	389	34	295	272	26					14	+78	8									
			5 T			371	34	36	273	3 3	000	08289	)	522	14	+79	6									
			ST	_		352	34	43	274	• 0	000	J7630	) ]	601	14	80	6									
	0.4	<b>7</b>	085			335		477	274	_					14	81	5									
			ST			334	34		270			0712t		675		+81										
			ST			316	34		275			16692		744		<b>+</b> 82!										
			ST			298	34		275			06253		809		83										
			ST			281	34		275			)5970		870		84										
	0.4	. 7	STI 085	D 1500 T1665		265 239	34		276		000	05767	/ 1	929		+85										
	U 2	+ /	003	11000	U,	234	34	591	276	5 5					14	<b>•</b> 87	1									

REFERENCE	SHIP					_ #	MAR	SDEN	STATION	IME			ORIGIN	ATOR'S		DEPTH	DEPT			WAVE	.tv €A+	CLOUD			100C
TRY ID.	CODE	LATITU	DE 1/10	LON	GITUDE 1/10	DRIFT INDC 18	500		IGMT		YEAR	CRUIS NO.		STATION NUMBER		10 801104	0.5	- (		RVATIONS HGT PER SEA	THER CODE	TYPE AN		2.	A TION UMBER
	O D.T	3013		17.			10.	1		4R,1/10	106	+	+				3 160 17	_	1						
31 117	B RT	3012	4 N	141	0230W	1	123	00		U36	1967	7 N1	O O 1		$\overline{}$	485Ü	15	5 .	3	4 3	X 1	8 5			0015
										SPEEC	BAR		DRY		- vis	NO.	SP	ECIAL							
								COLOR	TRANS. DIR.	FORC			8118	80L8	COD	DEPTHS	OSZEX	LVA TLO	N S						
									14	+ -	_	96	239	200	5 7	14									
	MESSENG									+			ic volu		5 A D	1.0	UND			20 5		110			,
	TIME	or NO.	CAR		DEPTH	lm l	1	C	2	SIG	MA-T	ANO	MALT-I	102	ξ Δ D ΣΥΝ. Μ × 10 <sup>3</sup>	r VEL	OCITY	0:	ml I	PO4-P	101AP	NO2-N µg • at 1	NO3=N µg - at/I	SI O4=Si ug • of 1	5 11
	HR 3/1	0		-			-			+		+		-						+					
	1		١	<b>T</b> D	000	0	2	352	3527	37	. ^^	0.0	3916	,	0000	1.6	316			,					
	0.3	4	08	T D	000			352	35265		•00 •00	00	3710	, , ,	0000		316								
	0.	В		T D	001			353	3527		+00	0.0	3922	n n	0039		318								
	0.3	6	08		001			353	35266		+00	0.0	- 122		- ر ب ر		318								
		-		TD	002			353	3527		+00	0.0	3924	1 (	0078		319								
				TD	003			352	3527		+01		3925		0118		321								
	0.3	6	OB		003			352	35268		+01						321								
			S	TD	005	0	2	191	3504		+29	0.0	3658	35 (	0194		281								
	03	6	08	S	005	2	2	170	35013	24	+33					15	275								
			S	ŦΟ	007	5	1	871	3483	24	<b>49</b> 8	0.0	3067	75 (	277	7 15	196								
	0.3	6	08		008			823	34796		508						182								
				TD	010			696	3464		527	00	2744	9 (	349		140								
	0.3	6	08	-	010			678	34618		529						141								
			_	TD	012			556	3443		543		259€		)416		105								
	0.5			TD	015			430	3426		557	00	2464	6 (	) 4 7 9		067								
	0.3	6	ОВ		015			406	34233		560				350.		3760								
	0.3	,		TO	020			215	3404		84	00	2221	. U	)59e		000								
	0 3	6	08		1020			189	34020		587		1046		a <b>-7</b> a 3		992								
				TD TD	025		_	072	3405 3406		511 532		1969 1772		0701 0794		959 1923								
	0.3	4	0B		030			1932	34062		535	00	1112	. ) (	0190		1923								
	0.2	,0		TD .	040			769	3401		556	0.0	1546	- 2	0960		870								
	0.3	16	0B		T041			1744	34003		559	00	1346	ے د	0 7 5 (		•863								
	0.5			TD.	050			604	3402		580	0.0	1325	5	1104		+822								
				TD	060			485	3407		598		1150		1 4 2 8		1790								
	0.3	6	08		T062			466	34080		701						786								
		-		TD	070			1433	3417		711	00	1024	6	1336		+787								
				TD	080			1400	3427		723		0920		1434		791								
	0.3	6	08	S	082	Ü	C	1394	34294	2	725					14	792								
			S	TD	090	0	C	379	3437	2	733	00	0830	8 (	1521	1 14	800								
				TD	100			361	3445		741	60	J758	36	1001		+810								
	0.3	6	08		1101			359	34454		742						811								
				TD	110			1342	3447		745		0726		1679		819								
				TD	120			323	3450		748		0694		1746		+8 < 8								
				TD	130			1304	3452		752		0662		1814		+837								
				TD	140			285	3454		755		0630		187		+840								
				TD	150			265	3456		759	00	0599	8	1940		+854								
	0.3	6	0 B	S	T154	9	C	255	34575	2.	761					14	+858								

E SH		LATITUDE	LO	NGITUDE	DHIFT TNDCTR	MARS	DEN	STAT	ION TH		EAR C	ORIGIA	STATIC		DEPTH	DEFI	H OB	WAVE SERVATIO	)NS	WEA-	CODE		5	NODC TATION
. co	DE		/10	1/10	ō≱⊦	10*	111	MO	DAY HE	2.1/10			NUMB		BOTTO	M S'MPI	.'S D1R.	HGT PER	SEA	CODE	TYPE AN	T	1	UMBER
78 R	т .	30050		0030W	_	123					967	N10 01	6		4389	1	5 14	3 3		X 2	8 7			0016
r ol u	1	30030	14   14	- OO JOW	ł	123	WA		_	IND T		AIR TE		:	1	1	21_17	1717	1	1 12	1 0 1 1	1	ı	0010
							COLOR	,	1	SPEED	BARO- METER	DRY	WE	VIS	NO,	OBECC	ECIAL VATIONS							
							CODE	(m)	DIR.	FORCE	(mbs)	BULB	BUL		DEPTH:	5 08367	V ~ 110143							
									15	519	192	239	2:	3 7	14			1						
	1					ī		-		1			1	_	-	-	Γ	_						
MES	SENGR	CAST NO.	CARD	DEPTH I	η}	1	*C	5	• 1.	SIGMA	-7 5	ANOMALY-X	JAME 107	Ž ∆ D		LOCITY	02 ml/	PO.		101AL-P ug - 01/1	NO2-N ug - a1/I	NO3-N	SI O4-S	
	1/10	NO.	TTPE											x 10 <sup>3</sup>				100-0	-	pg - 0171	pg - ui/ i	μg - αl/l	pg - 01.	1
		,	STO	0000	)	2	340	35	28	240	5	003873	33	0000	1.5	5313								
	182		OBS	0000	)	2	340		278	240	5					5313								
	182		OBS	000	9	2	346		281	240						5316								
			STD	0010			346	35		240		00389		0039		5316								
			STD	0021			347	35		240		00384		0078		5318								
			STD	0030			347	35		240		00390	2 2	0117		5320								
	182		OBS	003			347		281	240						5320								
	182		OBS	0049			067		907	245						5246								
			STD	0050			054	34		245		00340		0190		5243								
			STD	007			816	34	-	250		00297	7	050.		5178								
	182		OBS	0076			810		692	250						5177								
	182		085	0091		_	747		683	251						5162								
			STD	010			741	34		251		00281		0342		5160								
			510	012			648	34		253		00270	31	0411		5135								
	182		OBS	014			543		436	254		0.2251		06.74		5105								
	107		STD	015			521 249	34		254 258		00254	+ 1	0476		5098 5012								
	182		OBS	T019			232		U88 U9	258		00221	- 0	0599		5007								
			STD	020			099	34		261		00197		0700		4969								
	107		STD OBS	029			993		125	263		00197	2.3	0100		4938								
	182		SID	030		_	977	34		263		00177	64	0794		4933								
	182		OBS	T039			781		020	265		00111	J -	017-		4873								
	102		STD	040			764	34		265		00153	18	0959		4868								
			STD	050			588	34		268		00129		1100		4815								
	182		OBS	1056			501		046	269		00127		1100		4791								
	102		SID	060			484	34		269		00114	2.2	1222		4790								
			STD	070			437	34		271		00102		1330		4788								
	182		OBS	078			407		261	272		00101		1		4790								
	102		STD	080			403	34		272		00091	59	142		4792								
			STD	090			381		38	273		00082		1514		4801								
	182		OBS	T097			366		436	273						4807								
			STD	100			360		44	274		00076	19	1594		4809								
			STD	110			1339	34		274		00072		1068		4818								
			STD	120			320		49	274		00069		1739		4827								
			STD	130			301		52	275		00065		180		4835								
			STD	140			282		55	275		00062		187		4844								
			STD	150			1265		57	276		00059		1932		4854								
	182		OBS	T150			264		571	276		-				4855								

						1 4	ABLE	V 1.	<u> —</u> C	OHU	nue	eu									
REFERENCE CTRY IO. CODE NO.	CODE	LATITU		NGITUDE NGITUDE	MARSOEN SOUARE	STATION THE	YE AR	CK	JISE	STATION		DEPTH TO BOTTO	OF	H 08	WAV	TIONS	WEA- THER CODE	CODES		2.	NODC ATION UMBER
311178	RT	3006	N 14	001 W	10	MO DAY HE	83 196	-	10 01			466	3 /4/1	1		EP SEA	x1	TYPE AN			0017
-,	,				WAT		INO BA	ARO.	AIR TE	M.P. °C	VIS.	NO.	1	ECIAL			,				001
					COLOR	TRANS. DIR.		ETER nbs1	BUL8	BULB	CODE	DEPTH		VATIONS							
						15	S15 1	.79	239	222	7	11							,	,	
	MESSENGR	CAST	CARD	DEPTH Im)	T 'C	s ·4.	SIGMA=T	SPE	CIRIC VOLU	ME 2	A O	S	OUND	O <sub>2</sub> ml		4-P	TOTAL-P	N02=N	NO3-N	SI O4-Si	рН
	HR 1/10	1	1176		1	-		1			x 10 <sup>3</sup>	1 4	LOCITY		, bd	- 01 '1	ug - 01/1	nð - al.,	μg = al 'l	μg - σt )	
	1		STD	0000	2338	3523	2402	0	03902	24 (	0000	1	5312							1	
	18		OBS	0000	2338	35230	2402					1	5312								
	18	3	085 S <b>T</b> D	0009	2339 2339	35235 3524	2402	0	03905	4 (	0039		5314 5314								
			STD	0020	234	3523	2402		03912		0078		5315								
	18	2	STD OBS	0030 0032	2340 2340	3523 35231	2401 2401	0	03918	5 (	)117		5317 5318								
	10	,	STD	0050	2331	3523	2404	0	03902	2 0	195		5318								
	18	3	OBS	0051	2324	35220	2405	_	0216				5317								
	18	3	STD	0075 00 <b>7</b> 8	1915 1881	3477 34740	2483 2489	U	03157	,,	0284		5207 5198								
			STD	0100	1765	3469	2514	0	02866	7 (	359	1	5167								
	18	3	085 STD	0102 0125	1754 1623	34679 3452	2516 2534	0	02676	. 0 /	0428		5164 5127								
			STD	0150	1487	3435	2552		02516		)493		5086								
	18	3	OBS	0152 0200	1476 1229	34339 3406	2553 2582	^	02232	2 /	0612		5083 5006								
	18	3	STD QBS	T0204	1212	3406	2582	U	V2636			1	5000								
			STD	0250	1086	3407 3410	2610		01977		)717 )611		4964 4931								
	18	3	STD OBS	0300 0305	0972 0962	3410	2634 2634	U	01114	-1 (	J U I I		4931 4928								
	18	7	OBS	T0364	0863	34049	2645						4900								
			STD	0400 0500	0802 0632	3404 3401	2654 2675		01572 01366		)978 1125		4883 4833								
	19	2	oBs	T0552	0542	34000	2686		01900				4805								
PEFERENCE	SHIP	1 4 7 17 1	Dt 10	- E	MARSDEN SQUARE	STATION TI		. [		NATOR'S		DEPT	H DEP		WAV BSERVA	/E	WEA	- CLOUT			NODC
CODE NO.	CODE	·	1/10	NGITUDE E	10° 1°	MO DAY H	R.1/10 YEA	JU.	NO.	STATIO	N R	BOTTO		F			THER CODE			1	TATION LUMBER
311178	RT	3002	N 1	4000 W	123 00	11 01	195 196	57 N	110 0	18		451	9 1	7 18	3 3	3	X 1	8 2			0018
					COLOR			ARO-	AIR TI	WET	- vis	NO.		PECIAL RVATION:	,						
					COOL	Im1	FORCE	mbs1	BULB	BULE	_	DEPT	_	KVAIION	,						
						17	514	181	258	23		14			1			T			1
	MESSENG TIME HR 1/10	OF NO.	TYPE	DEPTH (m1	1 °C	s ·/	SIGMA-	T SP	ECIFIC VOL	UME	2 ∆ 0 0 N. A 103	Å. V	ETOCILA 200ND	O 2 ml		D4=P + 01/1	foral-F	NO2=N	NO3=N		рН
																		1			
	1.0	£	STD QBS	0000	2338	3524	2403	(	003894	45	0000		5312 5312								
	19	5	510	0010	2338 2338	35241 3524	2403 2403	(	003896	59	0039		.5314 .5314								
	19	5	OBS	0010	2338	35243	2403						5314								
			STD STD	0020 0030	2337 2336	3524 3524	2403 2403		)03891 )03901		0078 0117		.5315 .5316								
	19	5	OBS	0035	2335	35239	2403					1	5317								
	19	5	STD OBS	0050 0055	2214 2167	3511 35056	2428 2437	(	00366	94	0193		.5287 .5275								
			S <b>†</b> D	0075	1899	3477	2487	(	00311	87	027	7 1	5203								
	19	5	OBS STD	0085 0100	1815 1780	34700 3471	2502 2511	(	002890	n 7	N 3 5 1		5180								
	19	5	OBS	0110	1748	34709	2519					1	5164								
			STD STD	0125 0150	1668 1532	3458 3440	2529 2546		00273: 002574		0423 0489		.5141 .5101								
	19	5	OBS	0165	1448	34300	2556		10231	4 /	V461		5076								
	1.0	_	STD	0200	1228	3410	2586	(	00220	11	0609		5006								
	19	>	OBS STD	0220 0250	1128 1072	34019 3405	2598 2611	(	001969	99	0713	3 1	4973 4959								
			STD	0300	0977	3408	2629		001798		080	7 1	4933								
	19	כ	OBS STD	0330 0400	0919 07 <b>7</b> 2	34083 3402	2639 2657	(	00154	3.2	0974		.4916 .4871								
	19	5	035	0440	0750	33996	2665					1	4849								
			STD STD	0500 0600	0619 0509	34U1 34U6	2677		00135; 00118		1119 1246		.4827 .4800								
	19	5	085	T3566	0455	34107	2694 2704		V(110	, )	144		.4800 .4789								
			STD	07-00	0440	3415	2709		00104		1358	в 1	4789								
	19	5	5 <b>T</b> D 08 <b>S</b>	0800 0890	040 <u>1</u> 0376	3427 34352	2723 2732	(	00092	20	1456		.4791 .4795								
	1 ~	,	STD	(1900	0372	3437	2734		00082		1543	3 1	4797								
	19		STO	1300	0351	3444	2741	(	00075	44	1622		4806								
	19	¥	02S S <b>T</b> D	T1089 1100	0334 0332	34491 3449	2747 2747	(	0070	14	1699		.4814 .4815								
			5TD	1200	0313	3451	2750	(	000676	50	1764	4 1	4824								
			STD STD	1300 1400	0295 J278	3452 3453	2753 2755		)0065: )00628		183( 1894		.4833 .4843								
			STD	1500	0261	3455	2758		00060		1956	5 1	4852								13
	19	5	035	T1654	0237	34568	2762					1	4868								

178   178   179										/I.—												
1	C18Y ID.		LATITU		LONGITUDE	SQUARE	(GMT)		YEAR	CRUISE	\$T	ATION		10	DEPTH OF	OBS		THER				NODC
		PT	3.00 B	-	1 10	10.									-	1		CODE	1		-	NUMBER
	21/11/0	4 15 1	5000		1394600	1 1	<del> </del>			1			, 1		15	26	3   4	X5	5 8	,		0019
									METE	R D	RY	WET	VIS	085.	OBSERV	CIAL						
						CODE		FORCE	+ -	_			_									
STU   0000   2321   3520   2405   0038741   0000   15307   15507   1865   085   0000   2321   35204   2405   15307   15307   15307   15000   2322   35217   2405   15309   15309   15000   2322   35217   2405   0038788   0039   15309   15000   15							120	315	1 /	2 2	28	_					,					
185		MESSENGR TIME HP 1 10	CAST NO.	CARE	DEPTH (m)	1 ℃	s ·	SIGM	A — T			₹ DY	∆ D N. M 10 <sup>3</sup>	. VELC		02 ml/l						
185				- <b>-</b>	2303	22.11	25.36															
185		184	:							0038	8741	00	000									
STU   0010   2322   3521   2405   0038788   0039   15390									-													
STD   3020   2323   3521   2404   0038840   0078   15313   185   155   0030   2324   3520   2404   0038940   0116   15313   15313   155   045   0042   2324   3520   2408   0038814   0190   1525   15313   155   065   00452   2310   3498   2488   0034814   0190   1525   1526		10.								0036	u 9 u u	0										
STD   0030   2324   3520   2404   0018940   0116   15313													-									
185																						
STD   O.550   O.551   O.550   O.551   O.550		189	5	DES	0032					000	0 / 40	0 .	. 10									
165				ST	0.050					0034	4814	0.1	190									
STO   COT5   1920   3501   2506   0029953   0271   15212   15206   1		185	5			21 ÜU	34988	245	0		•											
STD   0100   1820   34930   2519   0028215   0344   15186   15184   15186   15184   15186   15184   15186   15184   15186   15184   15186   15184   15186   15184   15186   15184   15186   15184   15186   15184   15186   15184   15184   15186   15184						1920	3501	250	0	0029	9953	04	71									
185		185				1898	35015	250	6					15	206							
STD   0125   1739   3480   2529   0027347   0413   15165								251	9	0028	8215	0 :	344	15	186							
STD   0150   1630   3463   2541   0026199   0480   15134   15130   15130   15130   15130   15130   15130   15130   15130   15130   15130   15130   15130   15031   189   035   10207   1265   34117   2580   15020		185	)	_										15	184							
189										0027	7347	04	13	15	165							
STD   O200   1301   3416   2576   O022953   O03   15031   15020   STD   O355   T0207   1265   34117   2580   O020746   O712   14992   STD   O300   1046   3415   2623   O018647   O811   14959   O85   O306   O322   34149   2625   O15873   O384   14881   O85   T0407   O782   O3400   O2544   O312   O345   O3464   O345   O3464   O345   O3464										0026	6199	04	80	15	134							
189		189	7											15	130							
STD   0250   1165   3413   2600   0020746   0712   14992		100							-	0022	2953	0.6	03	150	031							
STD   0300   1046   3415   2623   0018647   0811   14959   14955   1		180	)					258	0					15	020							
189																						
STD		100								0018	3647	0.6	311									
189		100	'																			
STD   0500   0528   3403   2677   0013535   1131   14831   1		189								0015	5873	39	84									
STD										0613	2020	1.1										
189																						
STD 0700 0453 3417 2709 0010482 1370 14795   STD 0800 0412 3427 2722 0009348 1469 14796   STD 0800 0412 3427 2722 0009348 1469 14796   STD 0900 0389 3434 2729 0008077 1559 14804   STD 1000 0366 3440 2736 0008031 1043 14811   STD 1000 0366 3440 2736 0008031 1043 14811   STD 1100 0345 3443 2741 0007638 1721 14820   STD 1200 0324 3446 2745 00077250 1796 14828   STD 1200 0324 3446 2745 00077250 1796 14828   STD 1300 0304 3449 2749 0006861 1866 14836   STD 1400 0285 3452 2753 0006487 1933 14845   STD 1400 0285 3452 2753 0006487 1933 14845   STD 1500 0266 3455 2758 0006102 1996 14854   STD 1400 0285 34528 2759   STD 1400 0285 34558 2759   STD 1400 02858 34558 2759   STD 1400 02858 3458 2759   STD 1400 02858 34558 2759   STD 1400 02858 34558 2759		189								0011	1998	1 4	50									
STD										0010	14.8.2	1.4	70									
189																						
STD		189		085	0904					000,	, , , ,	•	0 /									
STD   1000   0366   3440   2736   0008031   1043   14811   1				ST	D 0900	0389	3434			0008	3677	15	59									
189						0366	3440								-							
STD   120U   0324   3446   2745   0007250   1796   14828   STD   130U   0304   3449   2749   0006861   1866   14836   STD   130U   0285   3452   2753   0006487   1933   14845   STD   150U   0266   3455   2758   0006102   1996   14854   189   08S   T1542   0259   34558   2759   0006102   1996   14859   14859   1896		189		085	T1001		34399	273	6													
STD   1300   3304   3449   2749   0006461   1866   14836   1							3443	274	1	0007	7638	17	21	148	320							
STD   1400   0285   3452   2753   0006487   1933   14845   189   STD   1500   0266   3455   2758   0006102   1996   14854   189   OBS   T1542   0259   34558   2759   14859   14859										0007	7250	17	96	148	328							
STD   1500   0266   3455   2758   0006102   1996   14859   1										0006	861	18	66									
REFERENCE SHIP LATITUDE LONGITUDE SOUARE IGMTI TEAM ORIGINATOP'S CODE NO. 1 10 "1.10 "1.10 "2 10" 11 MO DAY HP.1.10 " FEAR COLUMN NO. NUMBER STATION NO. NUMBER STATI												_		148	345							
REFERENCE CODE 1 10 1.10 D DAY HP.1.10 PEAR CODE 110 TIME SQUARE IGMT: YEAR CRUSE STATION TIME CODE 1.10 TIME CODE 1.10 TIME CODE TO DEPTH OBSERVATIONS THEP CODES STATION NO. NUMBER BOTTOM SYMPLE OF HOSE STATION NO. NUMBER BOTTOM SYMPLE OF HOSE STATION NO.		100								0006	102	19	96									
CODE 1. 10 CODE 1. 10		154		UBS	11542	0259	34558	275	9					148	359							
CODE 1. 10 CODE 1. 10	REFERENCE					MARCHEN	STATION TO	4.6	Ţ	0.0	HG IN A 7	7*90	_	n chr.	MAX		/ A / / E	- T	CLCUC			
CODE NO. 1 10 1.10 2 10 11 MO DAY H.P.T. 10 NO. NUMBER BOTTOM STAPLY DIR MG PER SEA CODE TYPE ANT			LATITUD	E	LONGINOS EU	SQUARE			EAR					10	DEPTH			THEP				NODC STATION
	CODE NO.	CODE		1 10		10" 1"	MO DAY HP	.1. 10	- [	NO.			6			D1R H	GT PER SEA	CODE	TYPE A MIT			N U M BER
- 5 HILL FOLK C.   2007 PN   1274 COW    122   07 HILL 03   082   1767 (NEUF 020   4480   05   31   31   31   5     X3   6   8	311178	RT	3007	IN	139400W	122 09			967	NIO	020		1	4480	05	31	3 5	х 3	6 8			0020
WATER WIND BARD. AIR TEMP 'C VIS NO. SPECIAL	.,	1			1					4.17		*c				·	- 1 - 1	1 /2	J . D		1	JU 2 U

CODE NO.		•	1 10	1.10	10" 1"	MO DAY H	P.1.10		NO.	NU MABER	80	JIIOM	S"MPL"S	D1R	HGT	PER S	EA.	-000	TYPE	L AN T		NOWSEK	
21117	78 RT	3007	⊃N 13	9400W	122 09	11 03 0	082 1	967 1	N10 02	0	4	480	05	31	3	5		X 3	6	8		0020	
					WAT	TER V	IND	BARO-	AIR TE			NO.										00-0	
					COLOP	TRANS DIR.	SPEED OR FORCE	METER (mbs)	DRY BULB	WET C	VIS	0.07	SPEC VVR3280										
						22	515	165	228	222	7	11											
	MESSENGR TIME OF HP 1,110	CAST NO.	C ARD TIPE	DEPTH (m)	1 °C	s ·4.	SIGMA	1 5 T-1	PECIFIC VOLU	M.€ \$ ∆ DYN.	Mi	SOUP VELOC		02 ml/l		) 4~P • 01 'I		A L P	NO3-		NO3+N µg - at I	рн	500
																							П
			STD	0000	2333	3525	240	5	003872	6 00	00	153	11										
	082		065	0000	2333	35252	240	5				153	11										
	982		085	0008	2333	35248	240	5				153	12										
			SID	0010	2333	3525	240	5	003878	2 00	39	153	12										
			STU	0050	2334	3525	240	5	003883	5 00	78	153	14										
	182		0B5	0028	2334	35254	240	5				153	16										
			STD	0030	2334	3525	240	5	003884	7 01	16	153											
	182		ORS	0045	2331	35251	240	5				153	18										
			STO	0050	2278	3516	241		003806	7 01	93	153											
	0.82		085	0069	2014	34838	246	2				152	34										
			SID	0075	1902	3474	248	4	003147	8 02	0.8	152											
	195		OBS	0078	1853	34701	249					151											
			510	0100	1751	3467	251		001848	8 03	55	151	63										
	108		OBS	0117	1659	34586	253	1				151	37										
			STD	0125	1602	345Ŭ	253	8	002645	4 04	24	151	∠0										
			SID	0150	1442	3428	255	6	002474	5 04	88	150	71										
	95		065	T3156	1407	34232	256	0				150	160										
			SID	0200	1218	3411	258	8	002175	2 00	0.4	150	102										
	3 5		085	0.744	1071	34042	261	Ü				149	57										
			SID	0250	1059	3404	261	2	001952	0 07	0.7	149	54										
			SID	13.00	0964	3406	263	(1	001794	9 08	01	149	28										
	· -3 E		OBS	TC 333	0.403	34065	264	0				149	11										
			510	1400	0781	3406	265	8	001526	8 09	6.7	148	175										
100			SID	11500	0508	3400	267	7	001345	ь 11	11	148	23										
132	35		055	10504	0601	33998	267	8				148	21										

ICE	SHIP CODE	LATITU	Dε	LON	4GITUDE	DRIFT		SDEN		ION TI		YEAP	CRU		5 T A T1	ON		0	DEPTH OF	08	WAVE SERVATIONS	1	W E 4 .	CODES		- 5	NOD C MOIT AT
10.	0001	•	1/10		17.11	0 =	10*	1.	MO	AY H	1,1,10		N	0.	NUM	BEA	BOTT	100	S"MPL"	5 DIF	HGT FER S	A.3	ODE	TYPE AM	1		1 7 4. RE-
178	RT	3000	N	14	000 m	, l	123	100	11	J4   1	46 1	96	7 N.	10 02	1		42	97	15	30	3 4		ХI	4 6			002
•						.	,	WA			IND			AIR TE		°c	NO	-		-	121.1		^ 1	. 4 0		1	002
								COLOR	TRANS	DIR.	SPEED		RO+	DRY	W	ET COL	. 08	15.		CIAL /ATIONS							
								CODE	(m:	DIK.	FORCE	-{m	bs)	BULB	8U	118	DEP	THS									
										19	506	1	32	220	1	96 7	1	4									
0	MESSENGI							-	1			-			F	₹ △ 0	1				200	1					
	TIME	O' NO.	CAF		DEPTH	(m.)	1	*C	5	•4.	SIGM	A - T		THE VOLU		DYN. 7	ν.	VELO VELO		O <sub>2</sub> ml I	PO4=P		A L - P	NO2-N ug ~ ot+l	NO3-N ug - of I	SIO4-S	pН
- 1	HP 1, 10	+	_						+		ļ					k 10**						-	-	-	-,	-	-
- 1			_				1		1 25	٦.	2.4						_				,						
	1.4	,		TD.	000			331	35.		241		0.	3881	. 5	000			310								
	14	ь	02	_	000			331		232	241			3 4 4 4 1	7	0/1.3			310								
	1.4			T D	001			324	35.		240		U	) 3 B G ]	. /	003			310								
	14	C	08		001			324	35.	238	240			1 2 0 7.		003			310								
				TD TD	002 003			326 327	35.		240			03870 03879		007			312 314								
	14	_	- 06		003			327		2 <b>4</b> 235	241		U	5 50 15	. 0	OIL											
	14	0		5 TD	005			319	35.		240			n . w 7 1		019			314 315								
	14	_	03		005			319		227	241		0	03871	1 1	019			315								
	1 4	0		1) 2	001			849	34		240		0	03054	. 0	048			188								
	14	۵.	- 08		001			849		692 -	240		01	0:00	• ~	048			188								
	1 4	0		o TD	010			764	34		251		0.1	285	. 7	035			167								
	14	6	0.5		010			764	-	702	251		0	0200	7 1	000			167								
	1 -4	1)		T D	013			667	34		252		Cu	02 <b>73</b> 8	4 4	042			141								
				TD	015			551	34		256			0159		040			107								
	14	6	06		015			541		417	254					~			105								
				TU	020			256	34		25		0	02268	3 2	001			215								
	14	6	08		023			231	341	059	258	3.2							007								
			5	TD.	0.25	50	]	091	34	v 8	2 to 1	) a	0	01983	6	071	8	140	966								
			S	Tυ	J30	) U	0	957	34	J4	26.	54	0	01755	5	001	2	140	926								
	14	6	03	S	030	0.5	Ü	1745	54	960	26	16						140	922								
			5	TD	040	UC		763	34		265	5.7	0	01531	7.5	0 + 7	7	148	808								
	14	6	06	S	040		C	754		005	265								865								
				10	050			601	24		26			01329		112			820								
				Tυ	060			485	34		264		0	01158	d _	124			790								
	14	6	ÐВ	-	061			476		U <b>6</b> 3	269								788								
				TD	070			1434	34		27.			01025		135			787								
				Ţυ	080			397	34		27.		Ũ	0741;	7 44	145			789								
	14	6	JB		08]			1394		279	27								<b>7</b> 90								
			_	TD	090			1374	34		27.			00825		153			790								
				T⊃	100			1353	34		27/		0	0u756	7	101			806								
	14	6	0.8		T100			351		450	274		_						8 Ú 7								
				T D	110			333	3.4		27			0071		169			815								
				10	120			314	34		27			00006		176			824								
				ΤĎ	130			296	3.4		27			00656		182			8 5 3								
			_	TU	140			200	34		27			0062		189			844								
	1 -	,		TO	150			1264	34		27		ij	ŪU54°	15	195			854								
	14	0	QВ	5	T152	49	(	20Ú	< 44	550	2.76	- '-						14	857								

TABLE VII. Observed and interpolated oceanographic data for stations taken by USCGC KLAMATH at Ocean Station NOVEMBER, 26 November-17 December 1967, prepared from NODC Listing No. 31-1185 KL.

REFERENCE	Chille						MARSD		STATION TIME			ORIGINATOP'S			T	DEPTH	MAX.		WAVE		WEA	CLOU			NODC	
TRY ID.	CODE	LATITU		LONG	SITUDE	DRIF	SQUAF		IGMT		YEAR	CRUIS		STATI		٦.	TO BOTTOM	DEPTH	00.	SERVAT		THER			5	TATION IUMBER
ODE NO.	+	2000	1/10	1 10			10*		MO DAY HR.1/		10.0			-	MBER			S'MPL"	_	HIGT PER SEA			TYPE A			015 017
31 118	5 KL	3000	N	140	000 W		123		11 29	189	1967		1			1	4390	10	04	2 2			5 6	3		0001
							-	WAT		WIND	BAR	U•	AIP TE			zis	NO.		CIAL							
							C	COLOR	TRANS DIR.	SPEED OR FORCE	1		DRY Buls	W BU	ET COD	nnel	OBS. DEPTHS	OBSERV	RVATIONS							
							-		0.3		-			-		7	14									
				-						1011	1 20			1			1			Ц.	-					1
	MESSENGE TIME HR 1/10	or NO.	C A R TYP		DEPTH (	(m )	Ι,	c	s ·	51G	MA-T	SPECIFI	MALY-XI	1ME 10 <sup>7</sup>	₹ ∆ DYN. X 1	. D М.	SOU VELO		02 ml/l	PO4		TOTAL→P µg • o!/!	NO2-N ug = 01/1			pH
	1		51	10	000		20	46	3512	24	75	00.	3206	δ ΄	000	0.0	15.	235		1						
	18	9	089		000		20		35117	24	75						15.	235								
			Si		001		20		3513		75	0.0	3205	7	00	3.2	15.	237								
	18	9	069		001		20		35130		76							238								
			S1		002		20		3513		76		3205		00			239								
		_	51		003		2:		3513		76	00.	3206	8	001	96		240								
	18	7	089		003			46	35134		76				- 1			246								
			51		005		20		3513		76	00.	3212	8	016	50		243								
	18	4	083		006		20		35126	_	76							245								
	1.0		S1		007		19		3497		0.0	00.	2968	4	0 -	10		267								
	18	-1	089		009		17		34764		2.8				- 2			157								
			51		010		17		3475		30		2712		030			154								
	1.0		S1		012		16		3462		41	00.	2613	/	03	76		130								
	18	3	089		012			28	34622		41							130								
	1.0	_	S1		015		14		3441		54	00.	2493	5	044	40		090								
	18	7	0B3		018		13 12		34180 3416		75	0.0			261			034 019								
			51		025		10		3419		13		2226 1949		05!			961								
	189	<b>a</b>	OB3		T025			74	34086		13	00.	1 7 4 4	1	001	_1 4		960								
	10	-	S1		030		09		3406		30	00	1790	1 3	079	5.5		927								
	189	9	089		037		0.8		34030		53	00			0.			880								
		-	51		040		07		3401		57	00	1537	5	092	2.7		868								
			51		050		06		3399		77		1349		10			822								
	181	Q.	089		T050		0.5		33986		78	~ ~	,	-	10	0		818								
	. 0		51		060		05		3408		95	00	1184	. 8	11	93		804								
			51		070		04		3417		0 =		1048		13.			795								
	189	9	089		076		04		34230		18			-	1 - 1	- )		792								
			51		080		04		3427		22	000	0931	3	140	3		794								
			51		090		03		3435		31		1846		149			800								
			S1	T D	100	Ü	03	55	3442		39		773		15			8 - 7								
	189	9	089	5	102	J	03	5 U	34430	2.7	41							808								
			SI	TD	110	O	03	33	3446	27	45	000	726		164	48	14	815								
			51		120		03		3449		49	000	0687	8	17	19	14	823								
	189	9	089		127		02		34517		52						14	830								
			51		130		02		3452		53		0650		178		14	833								
			51		14 Û		0.2		3455		57		0614		184			842								
			51		150		02		3457		60		586		190			853								
			S1		175		0.2		346Û		65	0.00	)539	7	201	5 Q		881								
	18	3	089	5	1191	G	02	12	34604	2.7	67						14	903								

REFERENCE	SHIP					MAR	SDEN	STATION				DRIGIN	ATOR	'S		DEPTH	MAX. DEPTH	0.01	WAVE ERVATIONS	.	WEA-	CLOUR			NODC	
CTDY ID.	CODE	LATITU	1/10	LON	GITUDE E	300				YEAR			STATIO NUMB			TD BOTTOM	OF S'MPL"S	DIR	HGT PER		CDDE	TYPE AA			NUABER	
-		3003		1.6.		10*	1	MD DAY	1	1	_	-			+		-						-			
31 1185	KL	3003	IN	14	004 W	123		11 30	191	196	/ N	11 00			4	4024	18	0.3	3 3	1		6 7		1	0002	
							WAT		WIND	BAI		AIR TE	MP. U		/15	NO.	SPEC									
							COLOR	TRANS DI	R. 01	1 77.		BULB	BUI		300	DEPTHS	DBSERV	A TION S								
								0			57	183	17	6	7	14										
							L				$\top$		1	* ^	_	<u> </u>								ī	T	T,
	MESSENGR TIME	LCAST	CARI		DEPTH (m)	1	"C	5 %.	. St	GMA-T	SPE	CIFIC VOLU	102	₹ △ DYN.	Μ.	. SOL	DCITY	O2 m1/1	PD <sub>4</sub> =P		TA L-P	NO2-N µg - at l	NO3-N 1 to - gu		рН	c
	HR 1/10							-			-		-	x 1	0,	-			+	-				+		1
					0000		0.14	3530				02172		013.0		1,5	250				1					
	191		S1 0B5		0000		026	3510 3509		478	U	03172	U	000	JU		229									
	191	L	51		0010		028	3510		478 478	٥	03177		0υ:	3 2		229 232									
	191	1	085		0014		028	3509		478	0	0 3 1 1 1	O	00.	2 6		232									
	• • •	•	51		0020		028	3510		478	0	03181	5	000	54		233									
			51		0030		027	3510		478		03186		00			235									
	191	ι	OB S	Š	0038	2	027	3509	3 2	478							236									
			51	D	0050	2	026	3500	2	478	0	03192	5	019	59	15	238									
	191	1	QB5		0000		025	3500		478							239									
			51		0075		850	3483		504	0	02957	1	04	36		190									
	191	1	089		2600		718	3464		522			_				152									
	101		S1 OB5		0100		.701 .651	3464 3462		526	0	02754	· U	030	) 7		148									
	191	L	S1		0119		628	3459		536 539	0	02637		03	7 =		136 129									
			51		0150		528	3445		551		02529		04:			101									
	191	1	OBS		0179		408	3429		565		0272			-		165									
			51		0200		305	3419		578	0	02281	1	050	60		033									
	191	1	OBS	5	T0237	1	150	3405	4 2	597						14	984									
			S 1		0250		117	3405		603		02045		066			975									
			ST		0300		1995	3405		624	0	01848	8	076	65		939									
	19]	l	089		0351		1883	3405		642	_	0.157.0		0.01			906									
	191		S1 0B3		0400 T0469		1785 1667	3401 3397		654	U	01569	6	09:	36		876 841									
	191	L	51		0500		1626	3400		665 675	0	01369	1.2	10	0.2		830									
			S1		0600		1514	3409		696		01171		14			802									
	191	1	OBS		T0697		1436	3416		711	0	011/1	٤.	1 -	10		787									
		-	S1		0700		435	3417		711	0	01027	'o	13;	20		787									
			S1		0800		406	3426		721		00935		14			793									
			ST	ΤD	0900	0	380	3434	2	730	0	00854	1	150	0.8	14	800									
	191	1	085	5	0944		369	3437		734							803									
			S1		1000		357	3440		737		00790		150			808									
			S1		1100		335	3445		744	0	00735	9	10	66		816									
	19	1	OBS	_	11176		1320	3448		748	^	00100	. 1	1.7	2 7		822									
			S1 S1		1200 1300		1315 1297	3449 3451		749 751		00690		17.			824 834									
				r D	1400		1277	3452		754		00638		18			843									
			S1		1500		263	3454		757		00614		19			853									
			S1		1750		229	3457	-	763		00558		20			881									
	19	1	OBS		11805		222	3458		764	0	20230					887									
	- / .	-		-		•										- '										

FERENCE						- a	MARS			ION TI	ME			OFIGIN	ATOR'S		DEPTH	MAX		WAY		WEA-	CLOUD			NODC
Y ID.	CODE	£ATITU •	DE 1, 10	LONGI	TUDE '1/10	INDCT	10°			GMT)	P.1/10	YEAR	CRUISE NO.		TATION		TO BOTTOM	DEPTH OF S'MPL		AVR328	ZNOIT	THER	TYPE AM		1 5	TATION UMBER
11185	KI	3005	-	1396	590W		122					1967	NII	00	3		4846	15		1	2		6 6			000
1 1 1 0 5		1003	*	•			12.	WAI	-		IND			AIR TE		$\vdash$	NO.	ľ		7	- 1	1	1 010	1		000
								COLOR	TRANS imi	DIR.	SPEED OR FORCE	METE	R	DRY ULB	WET	CODI	0.05		ECIAL VATIONS	5						
										00	500	24	0 1	94	183	7	14			1						
ſ	MESSENG	CAST	CAPD						T		1		SPECIEN	volu	E	ΔD	50	UND		P	04~P	TOTA L-P	NO2=N	NO3-N	SI O4-5	
	HR 1/1	NO. '	TIPE		DEPTH (	m)	,	,C	2	٠/	SIGA	1-AA		ALY-KI	62   D	YN. M X 10 <sup>3</sup>		DCITY	Og ml		01/1	vg • 01/1	µg = at/1	yg - atril	ug - 01/1	
}	nk 1. 11	*		-					+								+			_						1
1		i	ST	D	0000	0	2	064	35	19	24	76	003	198	5 O	000	15	241		ì	1					1
	18	18	085		000			064		192	24		000		, ,	000		241								
			51		001			065	35		24		003	211	9 0	032		243								
	18	8	OBS		001			065		182	24				·	- 4		243								
			ST		002			066	35		24		00:	212	3 0	054		245								
			ST	D	0031	Ü	2	067	35.	2 Ú	24	76	003	209	1 0	U96	15	247								
	18	8	085	)	0031	Ü	2	057	35.	203	24	76					15	247								
			ST	D	005		2	067	35.		24	76	003	3214	1 0	161		250								
	18	8	065		005			067		206	24							250								
			ST		007			826	34		25		002	965	3 0	238		182								
	18	8	055		007			820		734	25							180								
			ST		010			789	34		25		002	779	6 Q	31C		177								
	18	8	085		010.			784		900	25							176								
			ST		012			690	34		25			681		378		150								
			ST		015			580	34		25		002	575	8 0	444		118								
	18	8	OBS		015			561		510	25							112								
	1.0		ST		020			324	34		25		004	317	9 0	566		039								
	18	8	085		1020			293		151	25		0.0	00-	- 0			030								
			51		025			149	34		26			039		575		987								
	18	. 0	ST		030			005 982	34	11 106	26		001	822	, 0	771		943								
	10	0	OBS ST		040			795	34		26		001	584	3 0	942										
	18		085		T041			776	_	999	26	53	001	40ر.	J 0	742		880								
	10	. 0	ST		050			624	34		26		001	359	2 1	089		829								
			ST		060			501	34		26			177		216		797								
	18	18	085		061			487		069	26		001		- 1	~ I O		794								
			ST		070			443	34		27		0.03	043	8 1	327		791								
			ST		080			404	34.		27			940		426		792								
	18	18	OBS		081			398		268	27				-			793								
			ST		090			383	34		27		000	857	6 1	516		801								
			ST		100			365	34		27			785		598		811								
	18	8	OBS		T103			359		436	27							814								
			ST		110		0	346	34	45	2.7		000	745	8 1	675		820								
			ST	D	120	U	Ú	327	34	48	27	47	000	710	8 1	747	7 14	829								
			ST	D	130	0	0	307	34	51	27	51	000	574	9 1	817	7 14	838								
			ST	D	140	0	0	286	34	53	27	55	000	636	7 1	682	2 14	646								
			ST		150			265	34		27		000	1598	7 1	944	14	854								
	18	8	OBS	, 1	<b>T</b> 152	5	0	260	34	567	27	60					14	856								

REFERENCE	Cuip		T			_ «	MARS			DN TI	M.E			OPIGI	NATO	R'S		DEPTH	MAX. DEPTH			A V E	WEA					40DC
CTRY ID.	CODE	LATITU		LON	GITUDE	INDC	SOUA			MII		YEAR	CRL		STAT			TO MOTTOR	O.F			2 NOIT A	THER				S1	UMBER
ODE NO.			1/10		,,,,	-	10.		_	AY HE	1,110		ļ N	10.	NUM	BER	-	-	S'MPL'S	DIR	НG	T PER SE	A	TYPE A	AA T		- 1"	0741004
31 118	5 KL	2956	0N	140	0030W		087	90	12 0	2 1	95	196	7 N	11 0	04			4618	16	34	3	-		6	8			0004
							[	WAT	ER	W	IND	BAI	20-	A IR T	EMP.	,c	vis.	NO.	SPEC	1A1								
							1	COLOR	TRANS.	DIR.	SPEED	M£	FER	DRY BULB		ET C	CODE	DBS. DEPTHS	DBSERV									
							-	CODE		2 .	FOFC	_	-		+	-					-							
		,	,						,	34	S18	2	10	194	1 1	78	7	14			Ĺ,			,				
	MESSENG	CAST	CAR		DEPTH (	m)	Т	*c	5	. ,	ein	MA-T		CIFIC VOL		≨ Z DYN	0.4	sou		0 2 ml/	,	PO4-P	TOTAL-	NO2-	N h	103-N	SI O4-5:	рН
	HR 1/10	T NO.	TYP	E	0011111			•	-		3.0	*1.4-1	AN	NOMALT	x10,	x	103	VELO	CITY	02		ig + a1/1	h8 - a1/1	υg • αt	1 4	g + a1/1	μg - o1 l	pri
	1	1	5	TD	000	a '	20	37	351	2	24	77	1	0318	1.8	. oa	00	15	233						-			
	19	5	05.		000			37	351			77	•	0,10	10	00	00		233									
				TD	001			38	351			76	0	0319	46	0.0	32		234									
	19	5	OB:		001			38	351			76				,,,	, ,		235									
				TO	002			38	351			76	0	0320	12	00	64		236									
				TD	003			039	351			76		0320			96		238									
	19	5	OB:	S	003	4	2 (	339	351	09	24	76							239									
			S	T D	005	Ü	20	040	351	2	24	77	0	0320	83	01	60		242									
	19	5	OB:	S	005	5	21	040	351	21	24	77						15.	243									
			5	TD	007	5	18	843	348	2	2.5	0.5	0	0294	77	0.2	37	15	187									
	19	5	0B:	S	008	4	1	779	347	40	25	14						15	169									
				TD	010			720	341			60	0	0 < 74	85	03	03	15	154									
	19	5	0B:	5	011	J	1 6	682	346	85	25	3.3						15	144									
				I D	012			529	345	9		3.8	0	0263	9.2	03	76	15	129									
				T D	015			529	344			50	0	0253	92	J 4	4 Ú											
	19	5	0B:		016			462	343			57							081									
				10	020			259	341			82	0	0223	72	ū5	6 Û	15	017									
	19	5	0B:		T022			167	340			93						14	987									
			-	I D	025			109	341			08	0	0199	75	ŰΟ	66	14	972									
				ΤD	030			005	341			29	0	0180	06	0.7	60		944									
	19	5	08.		031			963	341			36							934									
				T D	040			766	340			57	Ü	0154	18	09	28	14:	869									
	19	5	0 B		T041			737	340			60							860									
				TO	050			602	340			81	_	0131	-		70		821									
		_		TO	060			489	340	_		9.8	0	0114	82	11	94		794									
	19	5	08		1061			474	340			01							789									
				TO	070			444	341			0.9		0105			04		791									
	1 -	_		T D	080			411	340			18	0	0096	33	14	04		795									
	19	5	0B:		081			405	342			21					_		796									
				10	090			381	343			29		0086			96		800									
				T D	100			353	344			39	0	0077	15	15	77		806									
	19	5	0B:		T102			348	344			41	-						808									
				T D	110			328	344			45		0072			52		813									
				TD	120			307	344			49		0068			23		821									
				TD	130			287	345	_		53		0065			89		829									
				TD.	140			271	345			56		0061			53		840									
	1.0	E		TO	150			257	345			59	Ü	0059	V I	19	14		851									
	19	5	OB:	5	T159	0	Ų,	247	345	83	21	62						14	863									

											7									7	,		
REFERENCE	SHIP	LATITU	DE LO	DNGITUDE E	MARS SQU		STAT	ION TI		YEAR		SINATO		_	DEPTH OT	DEPTH	.	WAVE SERVATIONS	WEA-	CLOUE			NODC
ODE NO.	CODE	*	1/10	1/10	10"			DAY H		IEMK	CRUISE NO.	STA.		1	BOTTOM	0.5	"	HGH PER! S	CODE		1		TATION
31118	5 KL	3003		40032W	123	1				1967	N11 0	005		1	4006	16				96			0005
- 41- 2-0	-1 1	5,			[	WAT			IND		T A IP	TEMP.	°C ]		NO.			13141	1	1 410	1	- 1	0005
						COLOR		DIR.	SPEED	METE	R ORY		/E1	VIS.	OBS. DEPTHS		CIAL /ATIONS						
						CODE	(m)		FORCE	(mbs	-	- 8	DFB	-	DEFINS								
								28	508	23	4 178	3   1	56	7	14								
	MESSENGR TIME	CAST	CARD	DEPTH (m)	1 ,	*C		•/			SPECIFIC VO	DLUME	₹ /	1. M.	SOL	IND		PO4-P	TOTAL-P	NO2-N	NO1-N	S1 O4-5	
	HR 1/10	" NO.	TYPE	DEFIN IMI	1 '		,	**	SIGM	I - A	ANOMALY	-x107	X	10 <sup>3</sup>	VELC	OCITY	O 2 ml/	νg = 01/1	μg - at/l	μg = at/1	νg = σ1/1	F 10 - gu	pH
							İ								1								
	1	' '	STD	9000	2	33	35	15	248	31	00314	70	00	00	15	232			1	1	l	I	1
	190	)	085	0000	2	033		154	248	3 1			_	-		232							
	190	)	085	0000	2	36	35	162	248	3.1					15	234							
			STD	0010		36	35		248	3 1	00315	24	00	31	15	235							
			STD	0020		0.36	35		248		00319			63		236							
			STD	0030		335	35		246		00316	24	00	95		238							
	190	)	OBS	0033		335		154	248							238							
			STO	0050		034	35		241		00316	48	01	58		241							
	190	)	085	0052		034	_	159	248		00.101			3.5		241							
	100		STD	0075		850	34		250		00298	361	0 4	35		189							
	190	)	085	0076		843 72 <b>4</b>		775	250		0037	105	0.7	0.7		187							
	190	`	STD OBS	0100		706	34	658 658	252 252		00277	95	0.5	0.7		155							
	190	,	STD	0125		627	34		25		00264	0.3	0.3	75		150 129							
			STD	0150		522	34		25		00251		_	39		099							
	190	)	085	0151		518		442	25		00271	. , 0	0 -	,,,		097							
			STD	0200		272	34		258		00224	+72	0.5	58		021							
	190	)	OBS	T0209		235	34	113	258							010							
			SID	0250	1	125	34	11	260	06	00201	162	06	65	14	978							
			STD	0300	1	200	34	11	262	2.8	00181	62	07	61	14	942							
	190	)	OBS	0312		974	34	112	26	3.2					14	934							
			STD	0400		793	34		265		00157	740	04	30		879							
	190	)	085	T0414		767		010	265							871							
			STD	0500		529	340		26		0013			77		832							
	100		STD	0600		508	34		269		00118	61	12	04		800							
	190	J	OBS	T0625		485		080	269							794							
			STD	0700 0800		450 410	34		270		00105			16		793							
	190	)	085	0836		398		42 280	272		00094	13	14	17		795							
	190	_	510	0900		382	34		27		00085	6.6	15	07		796 801							
			STD	1000		358	34		27:		000077			89		801 801							
	190	)	OBS	1049		347		449	270		5007	15	1 -	0 7		812							
		-	STD	1100		336	34		274		00072	289	1.6	64		816 -							
			STO	1200		315	34		274		00069			35		824							
			STD	1300		297	34		27		00066			03		834							
			STD	1400		280	34		279		00063			68		843							
			STD	1500		264	34		27		00060			29		854							
	190	)	085	T1590		252		5 <b>7</b> 7	276		30000			No.		864							

											BIC III	1.100**			MAX.		\4\4\	Luci	T C1C***		—-т		
REFERENCE	SHIP	LATITU	DE	LONGITUDE	DRIFT	M ARS DEN SOU ARE	STATION T (GMT)	WE	YEAR	CRUISE		ATOR'S		DEPTH TO	DEPTH	08	WAVE SERVATIONS	WEA	CODE	s		STATIO	ION
CODE NO.	CODE	•	1/10	1/1	0 2 2	10" 1"	MO DAY H	P.1/10		NO.	,	IU M BER		BOTTON	S'MPL	5 DIR	HGT PER SE	CODE	TYPE A7	4		NUMB	BEP
311185	KL	3005	ON	140050	AÍ .	123 00	12 06	195	1967	N11	00	6	- 1	4244	39	36	1 4		6 3	3		0.0	000
' '			'			WA	TER V	UNIV	BARC	). A	IR TE	MP °C	VIS	NO.	CDE	CIAL							
						COLOR		SPEED	141676		RY	WET	COD	OBS.	OBCEDI	ATIONS							
						CODE	lm)	FORC	_	_			-		+								
							36	505	26	1 2	11	172	_	19	l		L,				~T		
	MESSENG TIME		CAP	DEPTH	(m)	1 °C	5 %	S1G	MA-T	SPECIFIC	volu	ME 2	A D	50	UND	02 ml/	PO4-P	TOTAL-F					рН
	HR 1/10		TYP							ANUM	K_7-11	0.	X 10 <sup>3</sup>	VEL	OCITY		μg = 01/1	pg = 01/1	µg = at/	νg - at/	) µg = 01	71	
																			1	-			
	+	•	51			2036	3515		80	003	157	5 (	0000		233								
	19	5	089			2036	35150		480						233								
			s.	LD 00		2034	3515		+81	003	154	6 (	0032		234								
	19	5	063			2034	35152		481						234								
				LD 00		2031	3515		481	003			0063		5235								
			\$1			2030	3514		481	003	157	4 (	0095		236								
	19	15	083			2030	35144		+81		_				236								
				D 00		2032	3515		481	003	162	4 (	158		240								
	19	15	OBS			2032	35154		481						240								
				TD 00		2028	3514		482	003	169	1 (	0237		243								
	19	5	OB:			2028	35143		482		- a -	_			5243								
				TD 01		1750	3477		522	002	787	7	0311		5166								
	19	95	OB:			1747	34755		523						5163								
				TD 01		1645	3461		536	002			3380		5135								
				TD 01		1539	3447		550	002	538	16	)44		5104								
	19	95	OB			1526	34453		551	002	226	7	35.0		5100								
				TD 02		1328	3419		573	002	223	) /	0566		5041								
	19	15	QB:			1300	34163		576	006	000		0674		5032 4976								
				TD 02		1123 0960	3413 3409		608	001		-	3768		4927								
				TD 03					633	001	103	) )	0160		4921								
	19	15	08			0941 0781	34083 3401		635	001	565		0935		4875								
	2.6			TD 04 5 T04		0768	3401		654 656	001	202	, 4	J 7 5 :		4871								
	J è	15	08:			0618	34000	_	677	0.0.1	351	2	108		4827								
						0499	3401		695		182		120		4796								
	19	16	QB			0493	34052		695	001	102	- /	1-0		4794								
	17	7 )		TD 07		0449	3415		708	0.0.1	058	2.3	131		4793								
				TD 08		0409	3425		720		946		142		4794								
	19		0B:			0406	34256		721	000	740	, .	1.2		4795								
	1,5	. ,		TD 09		0383	3434		730	0.00	857	76	151		4801								
				TD 10		0357	3441		738		783		159.		4808								
	19	9.5	QB:			0352	34425		740	000			/ .		4809								
	•	,		TD 11		0322	3446		746	000	713	36	166		4810								
					00	0290	3449		751		661		173		4814								
					00	0265	3452		756		617		179		4820								
					00	0246	3455	2	760	000	578	3.8	185	9 1	4829								
	19	95	QВ			0235	34567		762					1	4839								
		-		TD 15		0235	3457		762	0.00	556	66	191		4841								
	25	51	08		34	0229	34598	2	765					1	4879								
					50	0227	3460	2	765		531		205		4881								
			S	TD 20	00	0199	3461	2	768	0.00	50	7.2	218	3 1	4911								
	25	51	ΟВ	5 21	91	0183	34619	2	770						4937								
			S		00	0168	3462		771	001	479	7 1	243		4983								
	2 5	51	0.8		45	0159	34621		772						5021								
			S	TD 30	00	0155	3463		773	000	147	18	266		5064								
	2 5	51	QВ	S T33	0.0	0152	34633		774 776						5115 5218								

TRY ID.	SHIP	LATITUDE	LO	MGITUDE NO	MARS		TAT	ION TI	₩E	YEAR	CPU	ORIGIN	STATE		_	DEPTH	DEPTH		OBSF	V A VE	ON5	WEA-					NODC
DDE NO.	CODE	1/1	0	· '1,10 0 X	10"	7*	MO E	DAY	R.1710		N		NUM			BOTTOM	S'MPL			GT PE							STATION NUMBER
31 118	5 KL	30020N	14	+0000W	123	00		07	193	1967	N	11 00	7		-	4390	16	. 3	35	1 4			0	7			000
					-	WA	т —	V	SPEED	BAR		AIR TE	1	v	/IS	NO.	SPE	CIAL								,	000
						COLOR CODE	TRANS,	DIR,	OR FORCE	MET		DRY	BU		300	OBS. DEPTHS	OBSERV	VA TID	2 11								
								05	512	126	1	211	10	51 7	7	14			$\dashv$								
	MESSENGR TIME HR 1/10	CAST C	ARD YPE	DEPTH (m)	T	°C	s	٠	SIGN	AA-T		IFIC VOLU		≨ ∆ DYN. x 10	D <sub>M</sub>	ZOU Z		D <sub>2</sub>	n1/1	PD4-		10741-P	NQ2-N		13=N - 01-1	51 D4-5	рН
																							_				+
			STD	0000	21	J U 7	35	11	24	84	00	3116	9 '	000	00	152	224										1
	193		65	0000		) u 7		105	24	84						152	224										
	193		65	6000		0 Ú B		108	24	84						152	226										
			STD	0010		800	35		24			3120		003	31	152	226										
			STD	0020		105	35		24			3125		006		15											
	193		STD	0030		308	35		241		0.0	3130	) Ü	003	74	152											
	193	-	BS STD	0034 0050		8 0 0	35		24							152											
	193		BS	0050		008	35		241		0 (	3140	0.1	015	ь	152											
	1 4 3		STD	0075		008 380	351		241		0.0		. ,	0.0		152											
	193		BS	0079		359	348		249		0 (	3007	5	023	3	151											
	* '-		STD	0100		773	348		25,		0.0	1743		212		151											
	193		BS	0108		738	348		25		0 (	2783	0	030	15	151											
			STD	0125		560	346		25:		0.0	2657	,	037	2.7.	151 151											
			STD	0150		541	344		25			12542		043		151											
	193	0.6	58	0158		502	344		25					0.5	, ,	150											
			STD	0200		269	341		258		0.0	2234	. 1	055	8	150											
	193	0 8	35	T0221	1.1	175	340	78	250				-	0- /		140											
		9	STD	0250	1.1	103	340	8.0	26(	8 C	0.0	2000	2	006	4	149											
			STD	0300	0 0	986	340	9	262	2.8		1806		0.75		149											
	193	0 i	35	0326	09	3U	340	92	263	38						140	20										
			STD	0400	07	785	340	2	265	55	00	1562	2	072	8	148	376										
	193		35	T0449	07	702	339	996	266	5 5						148											
			STD	0500		27	340	2	267	77	00	1355	8	107	3	148	331										
			STD	0600		09	346	18	269	96	0.0	1172	5	140	0	148	00										
	193			T0661		-56	341	29	270	) 6						147	189										
			STD	0700		40	341		27]	1 1	0.0	1032	8	131	0	147	89										
			STD	0800		· Ú 3	342		272		ŪΟ	0924	4	140	8	147	196										
	193		35	0875		81	343		273							147											
			STD	0900		175	343		273			0843		149		147											
			STD	1000		155	344		273			0783		157		148											
	193		STD	1100		343	344		274		0.0	0732	6	165	3	148											
	193			T1101		43	344		274							148	19										
	173	0.6	20	16500	0.2	48	345	000	27€	) l																	

REFER	RENCE	CHIP					. =	MAR		STA	TION T					RIGIN	ATOR*		0	DEPTH	MAX. DEPTH		WAY	/E	WEA		oud			NODC
CTRY	ID.	CODE	LATITU	- 1		GITUDE	DRIF		ARE		(GMT)			AP	CPUISE		TATIO			MOTTO	OF			ZNOIT	THER		DES			TATION UMBER
_	NO.	-		1/10		1710		10*	1 1		DAY				NO.	_	1 U M B	к	+		S'MPL'S	DIB	-	PEP SE	A	+	A 441	-		
31	118	5 KL	2910	DON	14	0050W		087				222	1 0	767	NII				3	742	16	3 -	11	3		6	ь			0005
									WA!		+	WIND	_	BARC	)• <u> </u>	IR TE		VIS		NO. 085.	SPEC									
									COLOR	TRAN	DIR.	57E E		METE		ULB	W E			EPTHS	OBSERV	ATIONS								
											0.8	S1	_	22	_	00	17	_	+-	14			-							
				_						_	0.0	121					1	2   0	Ц,	17						,				
		MESSENC	CAST NO.	CA		DEPTH	łm I	1	*c	9	٠	SIC	S AA A	_T	SPECIFIC			₹ A D	2	sout		0 2 ml l		04-P	fotal-			NO3-N	SI O 4 - SI	рН
		HR 3/1	o T NO.	TY	PE										MONA	ALICE	0.	x 10 <sup>3</sup>		VELO	CITY		νg	+ 01/1	2g + al7	pg +	at'ı	μg - at 'l	ug + at'l	
		J		S	TD	000	0	2	130	3 5	31	. 5	46	7	003	284	6	000	0	152	260									
		2.2	2	OB		000	Ü	2	130	3 5	304		46							152										
				5	TD	001	0	-	132	35	34	2	46	6	003	470	6	003	3	152	262									
		2.2	2	ΟВ	5	001			132		345	2	46	Q						152										
					TD	002			132		35		46			266		006		152										
					TD	003			131		35		47		003	266	5	0091	8	152										
		22	2.2	08		003			131		353		47							152										
					TD	005			131		35		46		0.00	276	0	016	4	152										
		22	2	08		005			131		348		46							152										
					TD	007			030		11		47		003	198	Ú	024	4	152										
		2.2	2	08		007			014		095		48		0.00	0.0		2 2 2	_	152										
		2.5			TD	010			876		05		51		902	868	כ	032	U	152										
		2.2	. 2	QВ		010			.865		040		51		0.5	700				153										
					TD	012			775		89		52			752		039		15]										
		2 -	2 2		TD	015			676		74 735		53		002	640	3	0+5	Ö	151										
		2.2	. 2	08	TD	020			478		• 7 3 3 • 4 5		53 56		003	441	7	058	_	150										
		2.2	2	0 B		1020			478		446		56		002		'	020	,	150										
		~ 4	. 2		TD	025			245		25		59		0.02	135		070	0	150										
		2.2	) )	ОВ		029			072		130		61		004			•		149										
		4, 4			TD	030			.061		12		61		0.01	910	3	080	1	140										
					TD	040			824		.03		65			614		097		148										
		22	2	QВ		0.40			824		028		65							148										
			-		TD	050			640		+04		67		001	356	2	112	6	149										
					TD	060			512		06		69			191		125		148										
		22	2.2	08		T060			509	_	1059		69			-				148										
					TD	070		(	1472	34	+18		70		001	063	6	136	6	148	303									
				S	TD	080	0	(	437	34	+28	2	72	0	000	1957	Ú	146	7	148	306									
		2.2	2.2	QВ	5	081	. 8	(	431	34	295	2	72	2						148	307									
				5	TD	090	0	(	404		+36	2	73	0		867		155	8	148										
					TD	100			374		442		73		000	796	0	164	1	148										
		22	2.2	08		1102			367		4434		73							148										
					TD	110			1346		+45		74			747		171		148										
					TD	120			322		+48		74			708		179		148										
					TD	130			301		+50		75			673		186		148										
					TD	140			282		+52		75			639		192		148										
		_			TD	150			267		155		75		000	609	14	193	ь	148										
		2.2	2.2	08	15	1162	9	(	252	34	+579	2	76	I						148	3 / 1									

10.		HIP	LATITUDE	LOP	ACILADE PORIET	ZRAM SUDZ	DEN	TATE	ION T	IME	YEAR	CRUISE		TATION		DEP	0 0	MAX, DEPTH DE	OBS	WA.	VE ATIONS	WEA- THER	CLOUD			NODC STATION
E NO.	100	,,,,	1.	/10	1/10	10*	114	MD	YAC	R.1/10		NO.		UMBE		BOTT	OW 2	MPL'S	DIR.	HGT	PER SE	CODE	TYPE AM			NUMBER
1118	5 K	(L	29020	N 14	0005W	087	90	12	09	194	1967	N11	00	9		420	0.7	19	14	1	3		6 3			000
-,	-1	- (				- [	WAT			VIND	1		IR TEA		т-'	NO				1 - 1	- 1	1	1 012	1	- 1	000
						ı	COLOR	TRANS.		SPEED	METE	· -	RY	WET	COD	. OB!	5	SPEC	IAL							
							CODE	im I	DIK.	FORCE	(mbs	} B	JL8	BUTB		DEPT	THS									
									09	509	22	7 2	06	19	<b>8</b>	14	4									
	MES	SENGE	CAST	CARD					1	1	1				EΔD		50			Τ.						
	1	TIME O	NO.	TYPE	DEPTH (m)	٢	°C	2	٠/	SIGN	T-AA	SPECIFIC	ALY-X10		DYN. M		VELOCI		D 2 m1/l		O4~P 2 - 01/1	fOTAt-P pg = cl/l	NO2-N ug - ot/l	NO3-N ug - at/1	\$1 O4~!	
	HR	1/10				-		-		+					X 103					-			-			
	1					1		1															ļ		İ	
				STO	0000		128	35		24		003	251	9 (	0000		1526									
		194		OBS	0000		128		347	24				_			1526	-								
		10/		STD	0010		127	35		24		003	253	/ (	0033		1526									
		194		OBS STD	0015 0020		127 127	35	347	24		003	250	2	10.65		1526									
				ST0	0030		126	35		24			258		065		1526									
		194		OBS	0030		126	-	34 334	24		003	264	6	9600		1526 1526									
		1 7 4		510	0050		086	35		24		003	245	7 1	163		1529									
		194		OBS	0064		27		130	24		000	- 47	, ,			1524									
				STO	0075		962	35		24		003	056	2 (	242		152									
		194		085	0098		852		977	25							1519									
				STO	0100		847	34		25		002	855	3 (	315		1519									
				STO	0125		774	34		25.			733		385		151									
		194		OBS	0128		764		907	25							151									
				STD	0150		568	34		25		002	661	0 (	)453		1514									
		194		085	0191		476	34	369	25							150									
				STO	0200	14	421	34	32	25		002	416	2 (	)580		150									
				STO	0250	1	161	34	11	25	99	002	082	8 (	0692	2 ]	1499	91								
		194		OBS	0255	1	139	34	090	26	0.2					]	1498	84								
				STO	0300		37	341	08	26	19	001	898	6 (	792	? ]	1499	55								
		194		OBS	0384		859		060	26							1490	0.2								
				STO	0400		824	341		26			595		966		1489									
				STD	0500		540	341		26		001	382	8	115		148									
		194		OBS	T 05 16		516		000	26							1482									
				510	0600		548	34		26			198		244		1481									
				STO	0700		481	34.		27		001	044	9 .	357		1480									
		194		OBS	T0772		442		283	27							1480									
				STO	0800		434	34		27			938		456		1480									
				STD	0900		406	34		27.			862		546		148	_								
		194		STD	1000		379	344		27		000	801	9.	629		148									
		194		OBS	1035		370		442	27:		000	71.7	2	70-		1481									
				ST0 ST0	1100 1200		354 331	344		27			743:		1706		1482									
		194		085	T1290		311		530 530	27		000	694	1	1778		1483	-								
		1 24		510	1300		309	34		27		000	660	2	846		1481 1481									
				STD	1400		289	34		27			645.		911		1484									
				STD	1500		271	345		27			632.		1975		1485									
				STO	1750		233	34		27			6061	_	130		1488									
		194		OBS	T1946		211		510	27		000	-00	•	(		1490									

									,							T	_			-		1		
REFERENCE	SHIP [	LATITU	IDE	LONGITUDE	MARSDE		STATION (GM		YE	AR		GINAT			DEPTH TO	MAX.	.		A VE VATIONS	WEA-	CLOUD			NODE
CODE NO.	CODE		1/10	1/10	10. 1		MO DAY			^^	CRUISE NO.	STA NU	MBER		BOTTON	OF S'MPL	1		GT PER SEA	CODE	TYPE AM			NUMBER
31118	15 KL	3001	_	140050W			12 11	202	_	67	N11	010			6856	1	1	_		18	8 3			0010
					- A	WAT		WIND		BARO	1 4 10	TEMP	. "c	Γ'	NO.	1		٦' ٔ	. [ - [	1 -0	1 0,3	1	ı	0010
							TRANS. DI	392	ED	METER	DRY		WET	CODI	0.00	- maccas	CIAL /ATIDN:	s						
					CC	DE	(m)	F01	CE	(mbs)		_	BULB	_				4						
				_			1	1 51	1	244	21	1	194	8	14									
	MESSENGE	CAST	CARD	DEPTH (m)	1 10		5 -4.		GMA	,	SPECIFIC V	OLUME	₹	∆ D N. M	50	UND	D <sub>2</sub> ml		PO 4-P	TOTAL-P	NO2-N	NO3-N	5104-	S1
	HR 3/10	NO.	TYPE	OET IN INC	1		,	31	GMA	-'	ANOMALI	-X107	x x	103	. AET	OCITY	D J ALI	121	µg = 01/1	yg = 01/[	ug = at/I	μg + α1/	yg - a).	.il pH
		1				-																		
	1	,	ST	0000	203	9	3520	, z	483	3 '	0031	325	00	000	15	234		- 1	1			1	1	1
	20	2	085	0000	203	9	3519	5 2	48	3					1.5	234								
			ST	0010	204	5	3521	2	482	2	0031	414	0.0	031	. 15	237								
	20.	2	085	0011	204	5	3520	8 2	48	2					15	238								
			ST		204		3521		484		0031			063		239								
			51		204		3520		483		0031	441	01	194		240								
	20.		085	0030	204		3520		48							240								
	20	2	OBS	0047	204		3519		48							242								
	2.1	2	ST		204		3520		483		0031	494	0.	157		243								
	20.	2	055	0074 0 0075	203		3519 3518		481		0021	٦,,	0	771		246								
	20.	2	STI OBS	0075	174	-	3478		486 525		0031	246	U.	236		241								
	20	2	51		174		3478		529		0027	n 43	0	309		164								
			ST		170		3473		530		0027			378		155								
			ST		160		3458		54		0026			444		127								
	20.	2	OBS	0153	159		3456		545							122								
	20	2	OBS	0188	132	9	3420		574							039								
			ST	0200	128	1	3419	2	582	2	0022	350	0	565	15	025								
			ST		110	و	3415	2	613	3	0019	502	Û	570	14	971								
	20	2	OBS	0280	101		3412		62							1943								
	2.0	_	ST		096		3410		633		0017	625	0	763		928								
	20.	2	OBS	0372	080		3402		65							881								
			ST		075		3403		659		0015			927		866								
	20.	2	ST	0500 T0 <b>57</b> 5	060 052		3403		679		0013	284	1	)6q		824								
	20	2	0BS 5 <b>T</b>		050		3402 3406		690		0011	837	1	195		∙802 •799								
			ST		044		3418		71		0010			306		791								
	20	2	085	0757	041		3424		719		0010	201	1	-00		790								
	20	-	ST		040		3427		722		0009	2 <b>7</b> 8	1 4	+03		793								
			ST		038		3435		73		0008			492		800								
	20	2	085	10952	036		3438		739		3000	٠,	•			804								
		_	51		035		3441		738		0007	836	1:	574		808								
			ST		033		3446		740		0007			649		816								
			ST		031	6	3450	2	749	9	0000		1	720	) 14	825								
			ST	0 1300	029	7	3454	2	754	+	0006		1	786	14	834								
			ST		028		3456		75		0006	117	1	849		844								
	20	2	OBS	T1484	026	9	3456	9 2	759	9					14	853								

TRY ID.	SHIP	LATITU	DE 3G	LON	GITUDE	DRIFT	MARS SQU	DEN	STA	ION I	TIME		YEAR	CRU	ORIGIT	STATIO		1	DEPTH TO	MAX. DEPTH OF	ОВ	W A SERV	VE A TIONS	- 1 '	WEA- THER	CLOUD			NODC
RY ID.	CODE		1/10		11/10	° 3  -	10*	1*	MO	DAY	HR. 1/	10			0.	NUME	ER	8	MOTTON	S'MPL'S	DIR.	HGT	PERS	EA.	ODE	TYPE A M	1		NUMBER
311185	5 1	3001	ON	140	0050W		123	00	12	11	19	2 1	967	N	11 01	1		4	755	17	14	2	2			8 5	1	-	0011
2/2 2 0 3	1					,	[	WA1		_	WINI		BAR	1	AIR TE			ή	NO.			٦' -					,		
							İ	COLOR	TEANS	DIR.	.   51	PEED	MET	ER	ORY	WE		D.Fl	000	SPEC									
							}	CODE	Im I	11		15	2 2	_	189	801	8 8	_	14			-							
									_	11	3	1)	22		109	1 1			14			4		-				_	
	MESSENC		CAR		DEPTH (	m.)	т.	°C	5	٠/		SIGM	A T	SPEC	CIFIC VOL	JME	₹Δ DYN.	О М.	sou		02 ml/		PO 4 P		A. L P	NO2-N	NO3-N	\$104-	
	HR 1/1		112	'E										^~	IOM ALT-A	, 6.	x 10	.3	VELO	CIIY		ν	g = a1/l	νg.	- 61/1	µg - at/1	yg - 01/l	µg - 01	.1
		1 1	S	TD	000	0	2	037	35	21		248	4	0	03119	9 '	000	0	152	234				,					
	19	9.2	OB.	S	000	0	2	037	35	211	l	248	14						152	234									
			S	TD	001	0	2	038	35	21		248	4	0	03120	00	003	1	152	236									
	19	9.2	OB.	S	001	3	2	038	35	214	+	248	4						152	236									
			S	TD	002	0	2	038	35	21		248		0	03125	52	006	2	152	237									
			S	TD	003	0	2	039	35	21		248	34	0	03130	8	009	4	152	239									
	19	9.2	ОВ	S	003	3	2	039		211	l	248	34						152										
			S	10	005	Ü	2	039	35	21		248	34	0	03139	96	015	6	152	243									
	1 <	2	οв	S	005	3	2	039		204		248							152										
				TD	007		1	865	35			25]	4	0	0286	25	023	1	15	196									
	19	92	08		008					959							_												
				1 D	010			706		77		253		0	0267	30	030	1	15										
	19	92	QВ		010			679		722		253		_		_		_	15										
				TD	012			626		62		254			02610		036		15										
			-	TO	015			533		49		255		0	0251	12	043	1	15										
	1 9	92	ов		015			497		442		255						_		92									
				TO	020			235		16		258		0	02170	) 1	054	8	15(										
	15	92	ОВ	_	021			175		104		259							144										
				TD	025			077		10		261			0194		065		144										
				10	030			959		08		263		U	0176	<i>7</i> 1	074	3	149										
	15	92	08		032			915		073		263		_	0154		090			913 868									
	1 6	2	OB	ŢΟ	040		-	764 717		987		265 266		U	0174	00	0 7 0	, 4		854									
	19	76		S TD	050			588		02		268		0	0130	4.8	105	2		815									
				TD.	060			460		08		27(			0111		117			780									
	1 (	92	0B		065			415		116		270		0	U L I I	,	/	_		770									
	1			T D	070			411		17		27		0	0099	92	127	18		777									
				τO	080			399		26		272			0092		137			790									
	1 9	92	08		087			388		318	8	272				_				799									
	-			TO	090			383		34		273		0	0086	37	146	4		801									
				TO	100			361	-	40		273			0079		154			809									
				TD	110			340		47		274			0073		162	23		818									
	19	92	ОВ	S	T110		0	340	34	46	7	274							14	818									
				TO	120			321		49		274		0	0069	93	169	4		827									
			S	TD	130	0	0	303	34	51		275	51	0	0067	0.2	176	3	148	836									
			S	TD	140	0	0	286	34	53		275	54	0	0064	18	182	9	14	846									
			S	TO.	150	0	0	270	34	55		279	57	0	0061	41	189	1	14	856									
	1 9	92	ОВ	S	T170	7	0	240	34	589	9	276	53						141	879									

NCE ID.	91H2	LATITUO	E LC	NGITUDE 1	NDCT	MARSE	DEN krē		ION TIM		YEAR	CRUI	ORIGIN	OTAS		DEPT	DEPT	H OF	WAV		WEA-	CLOUD		5	NODC
NO.	CODE	•	1/10	1/10	ž-	10"	- T-	моТо	DAY HR.	/10		NO		NUN		BOTTO	M S'MP		HGf ₽	EN SEA	CODE	TYPE AM	7	N	UMBER
185	KL	29580	N 14	+0000W		087			14 18		967	7 N 1	1 01	2		457						6 8	1		0013
100		_,,,		, , , ,	1.	۲, ۵۰	WAT		WI		1	1	AIR TE		r	1	- 1	3 00	] 1 1 1 4	- 1	!	0 0	1	1	0012
						-	COLOR			SPEED	BAR		DRY		VIS			ECIAL	!						
							CODE	(m)	DIR.	OR FORCE	lmb		BULB		JLB COD	DEPT		PATIONS							
									-	520	21	10	200	ī	83 8	14			1						
					$\neg$			μ.			1	1			1		-		<del></del>						
	MESSENGR TIME 0	CAST	CARD	DEPTH (m)	.	Ţ	*c	s	٠/٠.	SIGM	A - T		FIC VOLU		∑ ∆ C	λ.	ELOCITY	O2 ml/			101AL-P	NO2-N	NO3-N	S1 O4 S1	pH
	HR 1/10		1176										//// LI		X 10 <sup>3</sup>	·	ELOCIIT		10.	at/I	µg = at/t	µg - at/l	μg = σI/I	yg - al/!	
																i			1						
			STD	0000	,	20	17	35	18	248	7	00	3086	3	0000	່ 1	5228		,						
	189		QBS	0000		20	17	35	182	248	7					1	5228								
			STD	0010		20	18	35	18	248	37	0.0	3091	4	003	1 1	5230								
	189		OBS	0011			18		183	248	3.7					1	5230								
			STD	0020			19	35	18	248	3 7	00	3099	9	006	2 1	5232								
	189		OBS	0028			20																		
			STD	0030			20	35		248		0.0	3106	0	009		5234								
	189		OBS	0045			020		176	248							5236								
			STO	0050			19	35		248		0.0	3115	9	015		5237								
	189		OBS	0068			116		160	248				_			5239								
	100		STD	0075			395	34		250		0.0	2978	15	023		5204								
	189		OBS	0088			723		667	252			27/0		020		5153								
			STD	0100			710 549	340		252 253			2760 2639		030:		5151								
	189		OBS	0131			528		648	254		00	2039	, T	031		5136 5131								
	109		STD	0150			517	34		255		0.0	2484	. 4	043		5097								
	189		QBS	0178			371		277	257		00	240-		045		5052								
	10,		STD	0200			285	34		258		0.0	2213	14	055		5027								
			STD	0250			112	34		261			1980		065		4974								
	189		OBS	0274			)42		098	262			1,00	' '	000		4952								
	10,		STO	0300			985	341		262		0.0	1819	n	075		4936								
	189		065	0376			330		012	264					0.5		4889								
	,		STO	0400			782	341		265		0.0	1560	10	092		4875								
			STD	0500			512	34	-	268			1321		106	-	4825								
	189		065	T0589			504		060	26.9					100		4796								
	/		STD	0600			498	341		269		0.0	1166	5	118		4796								
			STD	0700			47	34		271			1033		129		4793								
	189		OBS	0791		0.	+11		270	272							4794								
			SID	0801		04	+09	34.	28	272	3	00	0923	39	139	7 1	4795								
			STD	0900		0.3	388	34	37	273	3.2	0.0	0841	3	148	5 1	4804								
	189		OBS	T0996		0.3	368	34	442	274	ιū					1	4812								
			STD	1000		0.3	367	341	44	274		0.0	0770	8	156	5 1	4812								
			STD	11:0			347	344	47	274	. 4	0.0	0738	3 1	164	1 1	4821								
			STD	1276		U I	27	34	49	274	7	0.0	0704	9	171	4 ]	4829								
			STD	13		0.3	Ü T	34	51	275		0.0	0071	2	178	2 1	4030								
			STD	1450		0.2	288	34		275	5	0.0	0638	3.3	184	B ]	4247								
			5 T D	15.0			270	34		275		( )	0605	3	191	0 1	-856								
	189		QES.	T1558		0.7	259	34	572	276	0					1	4862								

IO.	SHIP	LATITUDE	LO	NGITUDE 8	DCTR	A A R S I S Q U A			TION T	IME	YEAR	CRUIS	ORIGIN	ATOR'		DEPTH	MAX. DEPTH	08:	WAVE	ons.	WEA-	CLOUG	T -		NODC
NO.		• 1/	10	1/10	Z 1	0.	1.	MO	DAY	IR.1/10		NO.		NUMB		BOTTOM	S'MPL"	DIR.	HGT PER	SEA	CODE		+		NUMBER
185	KL	300101	113	395966	1	22	WA			191	1967		_			4572	_4	30	1 2			66	l		0013
							COLOR	_	+	SPEED	BAR	o• ⊢	DRY DRY	WE	- VIS.	NO.		CIAL							
							CODE	(m)	DIR.	FORCE	(mb		BULB	BUL		DEPTHS	ORSEKA	ATIONS							
									07	J15	22	10 .	183	15	5 8	14									
	MESSENGR TIME C		CARD	DEPTH Imi		T	*c	5	٠4.	SIGN	A-T	SPECIFI	C VOLU	ME 07	Ž ∆ D DYN. M		ио	O2 ml/l	PO4-		OTAL~P	NO2-N	NO3-N	SIO4-S	рн
-	HR 1/10	-		-	$\perp$			-		-					x 10 <sup>3</sup>	VEL.	CITY		4g + a	1/1 1	g + a1/l	ug - al/l	µg - a1/l	µg + al/	, ,,
J					-	7.0					2.0					1					Ì				İ
	191		STO SES	CU00			800	35	-	24	-	30.	3069	4	0000		226								
	191		0B5	0007			08		174 203	24							226								
	1 . 1		SID	2010			113	35		24		0.0	10.6	-	002-		228								
			STD	0.050			113	35		24			3066 3077		0031		229								
	101		125	0026			13		185	24		00.	)U 1 1	ر	0061		230								
	4 - 1		STD	0030			12	35		24		0.0	3082	2	0092		231								
	191		85	0041			10		183	241		00.	0002	2	0092		232								
	171		STD	0050			10	35		241		0.0	3087	3	0154		233 234								
	191		85	0060			109		174	241		00.	1000	,	0134										
			STD	0075			73	35		24		00:	3076	7	0 2 3 1		236								
	191		350	0084			35		007	24		003	010	2	0231		227								
			STD	0100			iú1	34		25		00.	841	0	0305		217								
	191		BS	0122			46		630	25		002		7	0000		180 135								
			STD	0125			31	34		25		001	2636	2	0373	_	130								
			STD	0150			08	34		25			2516		0438		130 094								
	191		BS	0163			48		329	25		002	210	0	0436		D76								
			STD	0200			85	34		25		003	2500	0	0557		026								
			STD	0250			02	341		260			019		-		969								
	191		BS	0250			02		053	260		002	.017	'	0664		969 9 <b>6</b> 9								
	-	*	STD	0300			68	341		262		0.01	798	5	0759		929								
	191		BS	0333			89		U61	264		001		_	J. J.		905								
			STD	0400			64	33		269		001	575	q.	0928		367								
			STD	0500			13	33		26			4114		1077		324								
	191		BS	T0505			0.7		917	261					1		322								
			STD	0600		05		340		269		0.01	1984	4	1208		301								
	191		85	0688		_	47		155	270							790								
			STD	0700		04	42	34		271		001	0352	2	1319	14									
			STD	0800		04	07	34	27	272			9290		1418	14									
	191	. С	85	0874		03	84	34	338	273							797								
			STD	0900			76	34		273		000	834	7	1506	14									
			STD	1000		03	50	344	43	274			760		1586	148									
			STD	1100		03	27	344		274			697		1658	148									
			STD	1200		03		34		275			653		1726	148									
			STD	1300		02		349		275			6292		1790	148									
	191		BS	T1378			87		556	275			2276	-	0	4.40	343								

Table VIII. Observed and interpolated oceanographic data for stations taken by USCGC TANEY at Ocean Station NOVEMBER, 7-28 January 1968, prepared from NODC Listing No. 31-1200 RT.

DECEMBERGE		-								-			0.010111				MAX.						1			
CTRY ID.	41HZ	LATITU	DE	LONGITE	UDE :	20 4	ARSOEN	51.	ATION TI (GMT)	ME	YEAR	_	ORIGIN.		-	DEPTH	DEPTH	01	W.A BSERV	ve Ations	- 1	WEA- THER	CLOUD			NODC
CODE NO.	CODE		1/10		1/10	5 7	D* 1°	MO	DAY	R.1/10		CRUISE NO.	7	TATION LUMBER		BOTTOM	S'MPL'S			PER S		CODE	TYPE A M	7		4 U M BEP
311200	PT	3000		1400	-	_	23 00	01	1		1968	N12	00	1		3840	+	13		4		¥ 1	6 6			0001
	1 . 1				- "	1 *	-	TER		INO			AIR TEA		$\top$	_	1 10	1 -	7 7	7	1	. 1	010	1		00.1
							-	RTRAP		SPEED	- BAR MET	o-	DRY	WET	- VIS	NO. 085.	SPEC OBSERV	ALL								
							CODE			FORCE			ULB	BULB		DEPTHS	OBJERT	- 11011	1							
									10	517	2.5	1 1	67	156	8	14			7							
	MESSENGR		CAR					Ť	1		4	CALCULA	VOLU	3	Δο	501	UND		1	O4~P						T
		NO.	TYP		EPTH (m	1)	1 °C		s ·/	SIG	MA-T	ANDM	ALY-XI	.; I c	YN. M X 10 <sup>3</sup>		OCITY	0 2 ml		0 4 mr		TA L - P	NO2=N n0 = 01/1	NO3+N ug = of/1	21 O4 - 2 10 - 94	
	HR 1/10		51	.0	0000		1939		522	2.5	7 1	207	0.2			_	207		+							
	000		089		0000		1939		5217		11	002	866	0 1 0	000		207				ĺ					1
	30.6		089		0000		1940		5209		10						209									
			51		0010		1940		521		10	0.02	877	6 0	029		209									
			5.1		1020		1940		521		10		879		058		211									
			51		10.30		1940		527		10		881		0.86		212									
	301	)	083		0032		1940		5216		10	1, 0/2	0.01	_	~00		213									
			5.1		0050		1941		521		10	002	891	9 0	144		216									
	200		086		0050		1941		5213		10	000			, -,		216									
			5.1		1075		1039		522		10	002	894	7 (	216		219									
	1.34	,	084		0078		1939		5215		10				_ 10		220									
			51		1100		1941		521		10	0.02	911	2 0	289		224									
	niis	)	OBS		1101		1941		5209		0.0						224									
			51		~125		1784		490		25	002	766	7 0	360		180									
			5.1		0150		1647		466		40		635		427		140									
	770	)	ОВ		0153		1633		4633		41				_		136									
			51	n	0,200		1463	3	441	25	62	002	436	8 0	554	15	088									
	000	2	089	T .	0204		1448	3	4394	25	64					15	083									
			51	D	0250		1227	3	424	25	97	002	108	8 0	668	1.5	015									
			51	D	0300		1036	3	412	26	22	0.01	867	5 0	767	14	955									
	300	)	OB 5	5	0306		1017	3	4107	26	25					14	949									
			5.1	D	0400		0821	3	403	26	50	001	608	4 (	941	14	890									
	0.00	)	089		0409		0804	- 3	4026	26	52					14	885									
			ST		0500		0640		403		76		365		090		836									
			S 1		0600		0511		408		96	001	175	0 1	217		801									
	300	)	089		0615		0496		4089		08						797									
			51		1700		0460		419		10		041		328		798									
			51		0.080		0424		429		2.2	000	1934	1 1	426		801									
	J 10	>	089		0820		0417		4304		2.4						802									
			51		0.00		0395		436		30		856		516		806									
			S 1		1000		0369		442		3.8	000	790	1 1	598		813									
	000	,	089		1038		0360		4440		40						916									
			ST		1100		0345		447		44		732		6.75		820									
			51		1200		0323		451		49		684		745		828									
			ST		1300		0303		454		54		1645		012		837									
			S 1		1400		0284		456		5.7		615		875		846									
	2.6		51		1500		0267		457		5.9	uùū	593	7 1	935		855									
	300	2	089	· T	1556		0258	3	4570	27	60					14	861									

REFERENCÉ	SHIP				_ ≅	MAR		STATION	IME		ORIG	NATO	R*S		DEPTH   ,	MAX, DEPTH		WAVE	WEA-	CLOUD			NODC
CTRY ID.	CODE	LATITU		LONGITUDE	DRIFT	SQU		IGMT		YE A R	CRUISE	STAT			1001100	OF		ERVATIONS	THER	CODES		51	UMBER
-	-		1/10	17:10	+-+	10*	1.		HR.1/10		NO.	NUM	RFK	1	2 5	'W br	DIR.	HGT PER SEA	-	TYPE AM	T	- ''	CANBER
31 1200	RT	3018	N	14017 W		123			198	1968				1	4572	07	15	3 4	X 5	1 518			0002
							W A	TER	WIND	BAR	0-	EMP.		z15,	NO.	SPECI	AL						
							COLOR	TRANS. DIR.	SPE E1	1		B L	ET C	006	OBS. DEPTHS O	8SERVA							
								16	S 2 5		_		$\rightarrow$	7	13								
								10	132.	111	2 103	1			121							1	
	MESSENGR TIME		CAR		(m.)	1	*C	5 -/	StG	MA-T	SPECIFIC VO		∑ ∆ DYN.	D.M.	SOUN		) 2 ml/l		OTA L-P	NO2-N	NO3-N	SIO4-SI	рН
	HR 1/10	NO.	TYP	E							ANOMALY-	X10.	x 1		AFFOCI	ITY		μg = 01/1	M8 - 01/1	νg • α1/1	ا ۱۵ - ولا	hd - 61.1	p.,
	1		s.	rD 000	0	1	899	3505	2.5	509	00288	28	000	00	1519	94		1	,		'		
	198	3	083	5 000	0	1	899	35060	2 5	509					1519	94							
	198	3	039	5 000	8	1	901	35071	2.5	509					1519	96							
			S.	rD 001	U	1	901	3507	2.5	509	00288	38	00.	29	1519	96							
			51	rD 002	0	1	899	35∪7	2 5	10	00288	24	00	58	1519	97							
			S.				898	3507	2 5	510	00286	48	00	86	1519	99							
	198	3	083				898	35068		510					1519								
			ST				900	35∪7		509	00289	80	014	44	1520								
	198	3	083				000	35066		509					1520								
			S.				900	3506		500	00291	00	0.2	17	1520								
	198		083				90U	35060		509					1520								
	198	3	089				890	35034		509					1520								
			S.				875	3501		511	00289		029	-	1520								
	1.04		S.				705	3475		533	00269	32	03	59	1515								
	198	3	033 51				595 577	34585 3455		546	00357	2.0		٠.	1517								
	198		089				430	34334		547 563	00256	20	04	65	151								
	1 47	5	51				383	3429		26.2 569	00236	1.2	054	. 0	150° 1506								
			S.				178	3414		598	00209		05		1499								
	198	3	083				081	34080		511	00209	10	00.	, ,	1496								
			S				040	3408		519	00190	37	079	5.9	149								
	198	3	089				924	34067		537	00170	- '	0		140								
			51				806	3402		552	00159	33	09	34	1488								
	198	3	OB:				634	33976		572	1		-	•	148								
			5				623	3398		574	00138	16	10	83	148.								
			s.				531	3400		87	00126		12		1480								
	198	3	089				527	33998		587					1480								
	198		089				454	34139		707					1479								

REFERENCE	SHIP	LATITU	IDE LO	NGITUDE 1920	MAPS SQU		STATION (G.M.	TIME	Τ.	rear .		VATOR*		DEPTH	MAX. DEPTH	ORS	W A	VE ATIONS	WEA-	CLOUD			NODE
CTRY ID.	CODE	· LAIIIO	1/10	NGITUDE SO	10"			HR.1.1		CAN (		STATIO		801104	S'MPL"			PER SEA	CODE	TYPE AM	7		NUMBER
311200	RT	3004		211 W	123	_	01 09	+	-	040				1.573			1-	+		1	1		
211200	1 1	5171 4	. 4 1 14	SII W	123	WAI				908	N12 00			4572	16	15	4	4	X→	66	1		0003
						COLOR		WIND	EED	BARO-		MP. °C	VIS.	NO. 085.	5 PE	CIAL							
						CODE	Imi D1	R	OR IRCE	(mbs)	BULB	BUL		DEPTHS	OBSERV	ATIONS							
							0	$\rightarrow$	12	102	189	18	9 6	14									
		. T			T			-					* 10	1	1		$\top$		-				$\overline{}$
	MESSENGE TIATE	P NO.	CARD	DEPTH Imi	Ţ	"C	\$ 14.	.	SIG MA	1 - A	ANOMALY-X	ID"	₹ A D DYN. M	, SO VEL	UND	0.2 ml/l			TOTAL = P	NO2-N ug - at I	NO3-N	SI O4-S ug = 01/	
	HR 1.10	-			+		-	-		-		-	x 103	-			Ŧ,	,	-		pg - 0		-
							!								1								
	1.0		STD	0000		97h	3526		250		002928	34	0000		218								
	19	ý.	OBS	0000		976	3525 3527		250 250		00.103	7	05.25		216								
	19	0	5 T D 0 B S	0010		976 976	3527		250 250		002924	+ /	0029		219								
	19	4	STD	0010		970 974	3527		250 250		004924		0059		220								
			STO	0020		972	3527		250		00292		0088		222								
	19	Q	Jos	0033		971	3526		250		002.42.	) L	0000		222								
	-		STD	0050		971	3526		250		002929	9 3	0146		225								
	19	Q	UES	0052		971	3526		250				V		225								
			STD	0075	1	944	3519		250	7	00242	2.2	0419	15	220								
	19	Q	085	0081	1	937	3517	6	250	18				15	219								
			SID	0100	1	928	3515		250		00292	9	0492	2 15	220								
	19	9	065	0104	1	92U	3512		250					15	218								
			STD	0125		797	3490		252		00279		0 164		183								
			JTC	0150		005	3467		253		002004	2.1	0432		145								
	19	9	355	0156		632	3461		254						136								
	1	_	STO	0200		434	1431		256		002450	0.0	05 f. (		077								
	14	)	035	T0207		404	3427		256		0.0.11				0068								
			STU	0250 0300		225 356	3418 3410		259 261		002149		0£75		014								
	19	0	OBS	0310		028	3409		262		00171	J •	0 / / /		953								
	1 7	7	STO	0400		359	3404		202 264		00165	a in	0955		905								
	19	0	085	0413		836	3403		264		00103		0,,,,		898								
			STD	0500		663	3435		267		001382	2 9	1107		845								
			5 <b>T</b> D	0600		518	3407		269		001194		1436		804								
	19	Q	OBS	T0615		501	3406		269		0011				799								
			STD	0700	0	455	3418		271		001041	3.2	1348		796								
			STU	980€	U	412	3428		272		00092		1447		796								
	19	9	OBS	0824	0	404	3430	3	272	5				14	797								
			STD	0900	0	388	3435		273	)	000856	51	1536	14	803								
			STU	1000	0	366	3441		273	7	000794	4 U	1616	3 14	811								
	19	9	035	T1030		369	3443		274						814								
			SID	1100		345	3447		274		000732		1695		8-0								
			STD	1200		325	3451		274		00068		1766		829								
			STD	1300		305	3454		275		000648		1832		837								
			STD	1400		285	3456		275		000616		1896		846								
			STD	1500		266	3457		275		000592	25	1956		855								
	14	U	98S	T1565	Ų	254	3457	5	276	i				14	861								

ID. NO.	SHIP	LATITU	DE 1, 10	LONGITUD		A* ARSI SQUA	9.5	(	ION TI		YEAR	CPUISE NO.		ATOR"	N	DEP TO BOTT	0	MAX. DEPTH OF S'MPL'S		WAV SERVA	E TIONS	WE TH CO	ER	CLOUD CODE!	5		NODC STATION NUMBER
120	3 21	3000	N	14004		123	00	01	10 1	.98 1	968	NIZ	00	4		45	72	10	11	4	3	4	5	6 8			0004
	' '					ľ	WA		W	IND	BARC	· ·	AIR TEA	_		N/C					- 1		- 1	• •		'	000-
							CODE	TRANS.	DIR.	SPEED OR	METE	R	DRY BULB	W E I			S. CHS	SPEC OBSERV									
						-	CODE		0.0	FORCE	+			_	_	+	2										
		1				1		4	0.3	520	13	2	183	18			2						-				
	MESSENGR TIME ( HR 1/10	CAST NO.	C A RC		H (m)	Т	*c	S	٠4.	\$1G M	A = 1		VALY-XIC		≱ Δ I DYN, x 10	Μ, .	SOUP VELOC		0 2 m1/		4-P - at/l	TOTAL-		NO3-N	NO3-N ug - ai/l		
											- 1																
			ST		000		224	35		251		002	2854	4	000	-	152										
	198		033		000		924		183	251							152										
	198	8	085 51		)04 )10		928 928	35	181	251		0.0	2868°		0.1.		152										
			ST		20		728 727	35		251 251			2568 2568		002		152 152										
			ST		) 3 U		725	35		251			2869		008		152										
	198	н	035		131		925		181	251		007	2007	0	000		152										
	198		085		149		925		185	251							152										
	-		ST		150		925	35		251		00.	2872	8	014		152										
	198	9	085		74		926		182	251							152										
			5 T		75		25	35		251		00.	2885	6	021		152										
	198	3	085	0.0	196	19	908	35	138	251	2						152	213									
			ST	D 40	LOU	1 8	377	35	380	251	16	00.	2849	2	028	7	152	04									
			5 T	0 G	125	1 -	705	34	76	253	3 3	003	2688	2	035	6	151	55									
	198	8	OBS	. 0	43	16	05	34	584	254	44						151	25									
			ST	D 0	150	15	5 B U	34	55	254	+7	00.	568	5	Û42	2	151	18									
	198	R	085	10	193	1.4	19	34	358	256	7						150	72									
			5 T	D 0.	200	1:	384	34	33	257	7.2	007	2334	1	054	5	150	61									
			ST		250	1 1	167	34	17	260		000	2049	6	065	4	149	94									
	198	8	085		284		)55		8PC	261							149										
			ST		300		129	34		262		00	1877	7	075		149										
	198	8	OBS		378		394		J 5 8	264							149										
			ST		100		337	34		265			1615		045		148										
		_	51		00		528	34		267		001	1351	2	107		148										
	191	4	035				345		013	268		0.5					148										
			ST		00 ·		520	34		269			1208		120		148										
	2	2	ST		700		168	34		270		00	1095	B	131		148										
	201	3	085		710		+63		140	270		00		_			148	-									
			ST		300		125	34		271			3987		142		148										
	2	,	ST		900		392	34		272		000	0875	5	151	-	148										
	2∪€	ь	OBS	10,	997	0	364	34	432	273	14						148	313									

SHIP		TITUDE	1	1611UDE 5	ğ	MARSDEN SQUARE		1	ON TI		YEAR	CRUISE	STATIC NUMB	)N	DEPTH TO BOTTO	OF	H 08	WAVE SERVATION		WEA- THER CODE	CLOUD	1		NODC STATION NUMBER
DÚ RT	7.0	48 N	+	0.5	_		-1"		AYH		040					" S'MPL		MGT PEP	5£ A		TYP) AR			
70, ~1	4:	40 14	13	954 W	10		WATE			.98 ]	968	N12 00	MP. Y		4750	) 12	2 18	14 4 1		50	6 6	1		000
						coi		TRANS	DIR.	SPEED	METER	-	WE	- VIS	NO,	Longer	PECIAL RVATIONS							
						CO		(m)		FORCE	(mbs1		BUL	.в	DEPTH	S	-							
									19	520	06:	1 21	20	7	14									
MESSEN	i of N	ÇT C	ARD	DEPTH (m)		1 °C		s	٠/	SIGM	A-T	SPECIFIC VOLU		₹ △ □	, sc	סאטכ	O <sub>2</sub> ml/	PO4-P		DTA L-P	NO2-N	NO3-N		
HR 1/	10	-	172		_		_				-	240420-1		x 10 <sup>3</sup>	VE	LOCITY		µg = 01/1	,	9 - 88/1	μg + <b>α1</b> /1	µg - e1/1	µg • αl	1
	1			0.00		101	. 1	2.5		1														
1	98		STD	0000		196		35		250		002924	+5	0000		5213								
	78 98		BS BS	0000		196 196		352		250 250						5213								
1	70		SID	0010		196		352		250		002934		0029		5215								
			STD	0020		195		352		250		002937				5215								
			STD	0030		194	-	35		250		002923		0059		5215								
1	9.0		BS	0030		194		35		250		VU Z 7 Z 3	, 0	0000		5214								
1	0		5 T D	0050		192		35		250		002896	5.1	0146		5 <b>214</b> 5209								
1	9.8		35	0050		192			136	250		502070	<i>,</i> 1	0146		5209								
-	-		STD	0075		191		35		250		002904	4.4	0219		5213								
1	38€		55	0079		191		35		250		50270-		J-1		5213								
-	-		STD	0100		191		35		251		002907	77	029		5214								
1	9.9	0	BS	0102		190		350		251						5213								
			STD	0125		175	J	348	3.3	252		002736	3 3	0362		5169								
			STD	0150		160	8	346	51	254	<b>.</b> 5	002588	3.2	0428	3 15	5147								
1	99	0	BS	0150		160	8	346	507	254	+5				15	5127								
			STD	0200		141	9	343	35	25+	6	002390	) 2	0553	3 15	5073								
1	98	0	Bs	T0204		140	4	343	332	256	8				15	5068								
			STD	0250		121		341	9	259		002124	49	0666		5011								
1	98		<b>5</b>	0290		108		341	111	261	3				14	4970								
			STD	0300		106		341		261	. 7	001921	11	0767	1 14	4964								
1	98		BS	10385		038		340		264						4914								
			STD	0400		085		340	-	264		001637		0945		4901								
			STD	0500		063		340	-	267		001379	91	1096	_	4834								
1	98		35	T0539		057		339		268						4815								
			STD	0600		051		340		269		001207		1225		4804								
	0.0		STD	0700		045		341		270		001053	34	1338		4795								
1	98		35	0700		045		34]		270				:		+795								
1	98		STD	3800		042		342		272	_	000950	12	1438		4801								
1	70		35	0865		040		343		272		00000				4805								
			STD	0900		039		343		272		000867		1529		+807								
			STD STD	1000		037		344		273		000793		1612		814								
			STD	1200		034	_	345		274		000736		1689		821								
1.	98		5 T V 5 S	T1250		031		345	-			000095	0	1760		4829								
1	98	01	55	[1250		031	5	345	0 4	275	0				1 4	833								
1	ī				7	ARSDEN		F + 7				OBICIN	ATOR'	e J		MAX		WAVE	-		CLOUE			
SHIP		TITUDE	LON	GITUDE		SQUARE		JIA II	IT NC	nt .	YEAR ,		STATIO		DEPTH	DEPTH		SERVATIONS	5	WEA-	CODES			NODC
CODE	1:	1/10		1, 10	2	0" 1"	M	0 0	AY H		ľ	NO.	NUMBI	P	BOTTON	SIMPL	°S Die	HGT PEP 5	EA	CODE	TYPE AND			N U Mª B ER
ORT	30	08 N	139	9505W	+	22 0	9 0				968	N12 00	6		4755			2 5		X 1	6 4			000
1	(		1		1.	-	VATE			IND		4 10 75		$\neg$	_		_	1-1-1	1				1	J U U
						COT	OR 1	RANS	Ť	SPEED	BARO. METER		WEI	VIS.	NO. 085,	OBSER	ECIAL VATIONS							
						cot		im l	DIR.	FORCE	(mbs!	BULB	8UL		DEPTHS	3								
									22	524	036	202	18	8 7	10									
MESSEN	Ge _		1		7		Ť	_	-		1			₹ Δ D	1				Τ.					
TIME	GR CA	ST CA	ARD .	DEPTH (m)	1	1 °C		5	٠	SIGM.	A - T	SPECIFIC VOLU	IME	OYN. M	50	UND	0 2 ml/1	PO 4 - P	TC	941A1	NO2-N	NO3-N	SI O 4-S	1 pH

				COLOR	TRANS DIR.	SPEED OR FORCE	M ETE (mbs		8U		CODE	OBS. DEPTHS	OBECE	RVATIONS							
					22	524	03	6 202	1	88	7	10									
MESSENGR TIME of HR 1-10	CAST NO.	CARD TYPE	DEPTH (m)	1 ℃	5	SIGM	A - T	SPECIFIC VOLT		OYE	∆ D 10 <sup>3</sup>		OCITY	0.2 ml/1	PO4-P	101AL-2	NO2+N µg + ati l	NO3-N yg - at 1	\$1 O4-\$1	рН	2 00
		STD	0000	1909	3514	251	, <u>c</u>	00 z 849	ار،	00	00	15	198	1							
030		085	0000	1909	35140	251	. 2					15	198								
		STD	0010	1913	3514	251		002862	7	0.0	29		201								
0.30		085	0012	1914	35138	251	. 1					15	201								
		STD	0020	1913	3514	251		002867	6	0.0	57		202								
		STD	0030	1912	3514	251	1	002869	1	00	86	15	203								
0.30		OBS	0031	1912	35137	251	. 1					15	204								
		STD	0050	1912	3514	251	. 1	002877	2	0 3	43	15	207								
0.30		OBS	0351	1912	35135	251	. 1					15	207								
		STD	0075	1914	3514	251	1	002887	8	02	215	15	211								
0.30	1	OBS	0079	1914	35139	251	. 1					15	212								
		STD	0100	1912	3515	251	. 3	002882	2.1	0 4	88	15	215								
030	1	035	0102	1909	35153	251	. 3					15	215								
		SID	0125	1796	3470	252	12	002794	8	0.3	359	1.5	183								
		STD	0150	1682	3468	253	3 3	002699	8	04	427	15	151								
0.30		092	0152	1673	34660	253	34					15	148								
		SID	0200	1485	3441	255	7	002482	6	05	57	1.5	095								
030		085	T0202	1476	34401	255	8					15	092								
		STD	0250	1239	3420	259	7	002104	6	υ÷	71	1.5	000								
0.30		085	0285	1062	34103	261	. 6					14	961								
		STD	0300	1011	3407	262	2.3	001862	2	07	771	14	945								
0.30		OBS	T0372	0967	34047	264	4					14	903								

RENCE SHIP CODE LATE	TUDE LOF	AGILIDE NOCTE	MARSOI SQUAR	E .	STATION IGM			EAR	CRUISE	STATION NUMBER		DEPTH TO BOTTOM	MAX, DEPTH OF S'MPL"	0828	WAVE ERVATIONS HGT PEP SE	WEA- THER CODE	CODES			NODC STATION NUMBER
1200 RT 301	3 N 13	944 W	122	09	01 14	02	6 1	968	N12 00	7		4755	10	28	5 4	×1	9 1			000
1 1	,		' r	WAT	ER	WIN	5	BARO	AIR TE	MP. °C	T.	NO.	car	·					'	
				OLOP ODE	TRANS D	R.	EED OR ORCE	METER (mbs)	DRY	W ET BULS	COD	000		A TIONS						
					2	3 5	2.2	064	206	189	7	14								
MESSENGR CAS TIME OF NO. HR 1/10	T CARD TYPE	DEPTH (m)	т 4	c	s *4		SIGMA	-т	SPECIFIC VOLU	JME 10'	X 10 <sup>0</sup>	\$OI	DC1TY	O2 ml/l	PO4~P ug = at/1	TOTAL = P yg = ot/l	NO2~N ug - al 1	NO3-N µg - at/l	51 O4 ug + at	
	STD	0000	10		3513		251		002857	2	0000	15	198							
026	OB5	0000	19		3513		251						198							
	STD	0010	19		3513		251		005895	3 9 (	) U Z S		200							
026	035	0010	19		3512		251						200							
	STD	0020	19		3513		251		002869		0057		201							
0.04	STD	0030	19		3513		251		002869	) [	0086		203							
026	085	0030	19		3513 3513		251						203							
0.26	085 STD	0045 0050	19 19		3513		251 251		003971	,	11, 1		205							
026	OBS	0070	19		3513		251 251		002871	. 0	1143		206 210							
920	STD	0075	19		3514		251		002881	7 (	-15		211							
0.26	085	0090	19		3514		251		002001	. , ,	/- 1 -		214							
0.20	STD	0100	18		3503		251		002854	.1 (	287		200							
	STE	0125	17		3477		252		002758		357		165							
0.26	085	0140	16	65	3463		253						143							
	510	0150	1 e	13	3455		253		002640	6 3	425		126							
026	035	0190	14	13	3428	0	256	2					068							
	STD	0200	13	55	3425		257	2	002334	9 (	549	15	050							
	STD	0250	11	20	3414		260	)	001987	15	057	7 14	977							
026	085	0280	10	24	3409		262					14	947							
	SID	0300	10	U8	3410		262	5	001838	3 C (	753	3 14	944							
031	085	T0364	09	35	3409	2	263	7				14	928							
	SID	0400	0.8	57	3406		264	7	001643	1 (	927	7 14	904							
J 3 1	OBS	T0495	0.6	89	3400	3	266	7				14	854							
	SID	0500	06	84	3400		266	7	001448	30	081	14	853							
31	085	9570	0.5	95	3398		267	8				14	829							
	STD	0600	0.5		3400		268	6	001269	91	1217	7 14	811							
031	085	T0627	04	95	3402	9	269	3				14	798							
	SID	0700	04	7 Č																
	STD	0800	04	36																
	SID	0900	04	0.2																
0.31	OBS	T0966	0.3	80																

FERENCE	SHIP				_ =	MARS	DEN	STATION	TIME			ORIGIN	ATOR	's		DEPTH	MAX. DEPTH	Ι.		AVE		WEA-	CLO				NODE
1 ID.	CDDE	LATITU	DE 1/10	LONGITUDE 1/1	DRIFT	2004		IGMT		YEAR	CPUI		STATIO	N ER		OT MCTTOB	OF S'MPL"			VATION		CODE	T19E			2	TATION LU SER
11200	श	3000		1395831		122	-	01 14	198	1968	+	+	-		7	4206	14	2	_	5		X1	8				000
			1		,	· [	WAT	ER	WIND	8 A R		AIR TE	MP. "C	:		NO.	-		٦' <sup>-</sup>	, - ,		., -		•			000
							COLOR	TRANS. DIR	SPEEC	METI	ER	DRY DRY	W E 8U I	T C	VIS.	200	OBSERV	CIAL	ıs								
								25	524	14	. Ģ	189	17	2	7	14											
	MESSENGE TIME HR 1/10	NO.	CARD	DEPTH	(m)	1	℃	s ·/	SIG	M A -7		FIC VOLU		₹ ∆ OYN x 1	. M.	VETO 200		0 2 m	171	PO4-P		) TAL + P g - al. !	NO;-		NO3=N vg + al 1	\$1 O4-5	рН
						1	- \	2610	1												1						
		_	ST				904	3513		13	00	2841	9	00	00		196										
	19		082	001			704	35133		13							196										
	19	Ħ	08S 51	100 00 G			906 906	35126 3513		512	20	2052		٥.	2.0		198										
			5 T				906	3513		512		2852 2855		00		15: 15:											
			ST				906	3513		512		2859		00	_	152											
	19	8	085	00			906	35134		513	00	2337	-	00	50		202										
	1 /	C .	ST				907	3513		12	00	2866	. 2	01	43	15											
	19	8	085	00			9U7	35133		512	•				7.5	152											
	1		ST				910	3514		512	00	2880	a	0 ∠	15	152											
	19	q	035	00			910	35135		312	0 )		•	-		15											
	-		ST				910	3514		12	0.0	2888	ы	02	27	15											
	19	ú	085	01			91U	35136		512	00	2000	0	O E	0 1		214										
	1,	.,	ST				765	3484		525	0.0	2765	a	03	<b>c</b> 7		173										
			51				533	3459		38		2655		34			135										
	19	0	085	01			528	34586		538	0.0	2000	Б	J <b>4</b>	20		133										
	1.4	_	ST				52n 43t	3433		563	0.0	2427	2	05	6.5	15(											
	19	a	085	102			418	34318		564	00	2421	2	00	56		072										
	1 7	2	ST				207	3419		97	0.0	2108	2	06	46		008										
			ST				032	3409		521		1880		0.7			953										
	19	8	085	03			032	34093		521	00	1000	0	0 .	0,7		953										
	19		085	T03		_	839	34038		548							896										
	1 "		51				831	3404		549	0.0	1618	3	34.	40												
			ST				585	3401	_	68		1439		10			854										
	19	9	055	051			587	33993		80	00	. , , ,	~	10	, ,		848										
	-		ST				568	3403	-	85	0.0	1283	8	12	29												
			ST				478	3418		707		1070		13.		148											
	19	ρ	085	07			438	34259		718		10.0			•		800										
	• /		ST				425	3430		723	0.0	0927	9	14	47	148											
			ST				394	3438		732		0840		15		148											
	19	Ω	CBS	T09			383	34403		735	- 0			-			B Q 8										
	-		ST				366	3444		740	00	0771	8	16	16	148											
			5 T			0	340	3449		746		0712		10			818										
			ST				318	3453		752		0664		17		148											
			ST	0 130	OC	ο.	299	3455		755		0033		18.			835										
			ST				283	3455		756		Ü621		18		148											
	19	н	085	T14			78	34552		757	. •						848										

Œ.	SHIP		ATITUOE	LO	NGITUOE	× ×	ARSTEN QUARE	STAT	ION TI	M E	YEAP	-	ORIGIN				EPTH TO	MAX. DEPTH	08	WAVE	IONS	WEA		DUD			NOOC TATION
0.	CODE	1	1/10	1	1/10	10			DAY H	R 1/10		CRU		STAT NUA		80	MOTT	OF S'MPL"S	I.	[HGT] PE		CODI	: 1	A AAT			UMBER
00	RT	1-	8222N	+	0005W	1					100		13 00			1		1		1			-		-		
UU	K I	4	8222N	1.4	IMCOOD	0 :	_	O I			196	BIN.	12 00		te I	151	029	15	36	3 4	- [	Xl	1 5	16			0009
								<del></del>		SPEED		RO-	AIR TE	1	vi	Σ. I .	NO. OBS.		CIAL								
							COLOR	TRANS,	DIR,	FORCE	M E	bs)	DRY		VET CO		EPTHS	OBSERV	A TION S								
								+	00	500		20	189	1	78 7	+	14										
1		-						+	100	300		201	107	1		٠,	1 7			_	-	-	1				_
	MESSEN TIME			ARO	DEPTH (m)		T °C	5	•/	SIGA	A A - T	SPEC	IFIC VOLU	IME	₹ ∆ DYN,	D.,		JND	02 ml/	PO.		101AL-F			$NO_3-N$	\$104~5	рН
	HP 1/		NO. 1	YPE								1 ^~	UMALI SA		x 10	3	VELC	CITY		P9 -	e1/I	μg = 01/I	ng -	ot/I	yg = a1/1	µg − al	1
,		1	1	STO	0000	,	2030	35	28	24	91	0.0	3048	39	000	0	15	233		1				1			
	1	98	0	BS	0000		2030	35	279	24	91						15	233									
				STD	0010		2028	3.5	28	24	92	0.0	3046	7	0U3	0		234									
	1	98	0	BS	0010		2028	35	280	24	92						15	234									
				STD	0020		2029	35		24		0.0	3049	4	006	1		236									
	1	98		BS	0029		2029		286	24								237									
				STD	0030		2029	35		24		0 (	3052	0	009	1		237									
	1	98		85	0048		2026		283	24								240									
				STD	0050		2026	35		24		0 (	3053	3 1	015	3		240									
	1	98		35	0072		2024		290	24				_				243									
				STD	0075		2023	35		24		0 (	3049	13	022	9		243									
	1	98		BS	0096		2016		297	24					- 2 -			245									
				510	0100		1998	35		24			3017		030	-		240									
	1	9.8		STD B <b>S</b>	0125		1893	35		25		00	2896	5	037	9		213									
	1	7.0			0146		1809		934	25		0.			05	0		191									
				SID	0150		1798	34		25			2800		045			188									
	1	98		STD BS	0200 10206		1621	34	608 608	25 25		0.0	02607	9	058	5		140									
	1	30		STD	0250		1314	34		25		0.0	2223		070	,		132									
	7	98		BS	0294		1098		106	26		0 (	)	0	070	0		976									
	-	70		STD	0300		1082	34		26	_	0.0	1961	2	081	Ω		971									
	1	98		BS	T0398		0850		040	26		0.	21701	'	001	U		901									
	-			STD	0400		0846	34		26		0.6	1639	0.0	099	0		900									
				SID	0500		0665	34		26			11390		114			846									
	1	98		BS	T0586		0553		U46	26				•		~		815									
				STD	0600		0544	34		26		0.6	1230	9	127	3		814									
				STD	0700		0484	34	18	27			1078		138			808									
	1	98	0	BS	0784		0444	34	268	27								806									
				STD	0800		0439	34		27		0.0	00959	4	149	0		807									
				STD	0900		0407	34		27			00871		158			811									
	1	98		35	10978		0384		413	27				-				815									
				STD	1000		0378	34		27		0.0	00793	3	166	5		817									
				STO	1100		0351	34	48	27	44		0732		174			823									
				STO	1200		0327	34	52	27	50	00	0682	0	181	2	14	830									
				STD	1300		0305	34	55	27	54	0.0	0640	Ç	187	8	14	838									
				STO	1400		0286	34	56	27	57	0 (	0617	5	194	1	14	846									
	1	9.8	0	BS	T1492		0270	34	564	27	59						14	855									

RENCE	SHIP	1 A TIVE	Dr .	ONCITUDE E	M A	UARE	STATE	ON TH		_	ORIGIN			DEPT	H DEPI		WAV SERVA		WEA-	CLOUD			NODC
ID. NO.	CODE	. LATITU	1/10	ONGITUDE 8	10			AY H	YEAR	10.5	NO.	OITATE BBM UP	N ER	01 01108				PER SEA	CODE	TYPE AM			TATION
120	RT	2825	N 1	39583W	0.8	6 89	01 1	.6 1	97 196	8 1	112 01	0		457	2 1	5 31	4	2	X1	8 5			001
				,	,	WA	TER	w	IND BA	RO-	A IR TE	MP. °C		NO.	7		1''			,			001
						COLOR		DIR.	SPEED MI	ETER	DPY	WET		OBS.	0.055	PECIAL EVATIONS							
						CODE	(m)		FOPCE IT	nbs1	BULS	BUL	-		7		-						
						1		11	506   2	40	194	1.7	8 7	14									
	MESSENGE	CAST	CARD	DEPTH Imi	1	r °C		٠/	SIGMA-T		ECIFIC VOLU		2 △ ₽	S	OUND	O2 mt/	, PC	04-P	TOTAL-P	NO2-N	NO3-N	5104-5	
	TIME HR 1/10	Ϋ́ΝΟ.	TrPE	Offin im,	1	, ,	,		31GMA=1	A	NOMALY-XI	0,	DYN. M. X 10 <sup>3</sup>	VE	LOCITY	U2 mi		- 01/1	μg • of/4	ug - at/1	μg = σt/1	ug - at	pl
									1							-						-	1
	1	1	STE	0000	1	2036	35:	51	2492	, (	003040	9	0000	1	5235	1	ı			I	l		
	19	7	055	0000		2036	353	311	2492						5235								
	19		QBS	0009		2038	353		2492						5237								
	_		STO			2038	353		2492	(	003048	2	0030		5237								
			STC			2036	353	-	2492		003046		0061		5238								
	19	7	235	0029		2035	353		2493		_				5239								
			STO	0030		2035	353	31	2493		003048	5	0091		5239								
	19	7	085	0049		2034	353	313	2493					1	5242								
			STD	0050		2034	35.	31	2493	(	003052	ġ	0152	1	5242								
	10	7	085	0074		2038	353	310	2492					1	5247								
			STE	0075		2038	353	3 1	2492	- (	003073	J	0229	1	5247								
	19	7	038	0098		2031	353	309	2493					1	5249								
			STD	0100		2022	352	29	2494	(	003056	5	0306		5247								
			SIC			1917	351		2507		002940		81 د 0		5220								
			SID			1815	349		2520	(	002824	0	0453		5193								
	19	7	QBS	0150		1815	349		2520						5193								
			STD			1627	34		2547	(	002577	6	0588		5142								
	19	7	OBS	T0204		1610	346		2549						5138								
			510			1317	344	-	2591		002164		0706		5048								
	10	7	STD			1078	34		2613	(	001956	0	0900		4969								
	19	/	065	0301		1074	340		2613	,	2016//	0	0000		4968								
	19	7	5TD 0BS	0400		0852	340		2646	(	001646	U	0989		4902								
	19	r	5TE			0672	340		2646 2673	,	001394	6	1141		<b>49</b> 02 <b>48</b> 49								
			STE			0542	340		2690		001231		1273		4813								
	19	7	OBS	T0608		0534	340		2691		101531	4	16/3		4811								
	1 7		5TD			0482	34		2708	(	001068	4	1388		48U7								
	19	7	085	0798		0436	342		2721						4806								
	1.7		STE			0435	341		2721		000939		1488		4806								
			510			0401	341		2731		000454		1578		4809								
			STÜ			0370	344		2739		000783		1060		48ls								
	19	7	QBS	T1000		0370	344		2739	(		_	.000		4813								
			SIC			0343	344		2745	(	000723	. 1	1735		4819								
			STO			0319	349	-	2751		000123	_	1805		4826								
			STL			0298	345		2754		000640		1871		4834								
			STE			0281	345		2757		000611	-	1933		4844								
	19	-	085	T1476		0271		564	2759	`					4853								

RENCE 10.	SHIP	LATITU	DE LO	ACLINDE PREFE	MARSDEN SQUAPE	STATION TI	YE	AR C		ATION		DEPTH DEP	TH OB	WAVE SERVATIONS	WEA- THER CODE	CLOUD	1	5	NODC TATION NUMBER
NO.	0001		1/10	1/10 2	10" 1"	MO DAY H	R.1. 10		NO NI	938 W.L		OTTOM   S'MI		HGT PEP SE	^+	TITE AM			
120	Û RT	2821	2N 13	19560W	086 89	01 17	197   19	968	N12 011		4	700 1	15 17	4 4	X 5	8 5		1	0011
	,		,		WA	TEP V	IND	BARO-	AIR TEM	P. °C	vis	NO.	SPECIAL						
					COLOR		GB342	METER	DRY	WET	lener!		ERVATIONS						
					CODE	lm1	FORCE	(mbs)	BULB	BULB	$\vdash$			!					
						17	520	176	21	20	7	14							
	MESSENG	CAST	CARD		T .			5	PECIFIC VOLUM	, ≥	△ D. N. M.	SOUND	Τ	PO4-P	TOTA L→P	NO2-N	NO3-N	5104-5	
	TIME	9 NO.	TYPE	DEPTH (m)	t *C	\$ *	SIGMA		ANOMALY-110	, DY	10 <sup>3</sup>	VELOCITY	02 m1/	1 µg = 01/1	ا/اه - وبر	µg - at/1	µg - al 1	µg = atr	ρН
	HR 1/1	0		-		+	+			-			+						1
				0000	2072	3630	24.01	e	003016	, 01	000	15231	1	1		1	l	1	1
	1.0		STD	0000	2023	3530 35299	249! 249!		0030163	0	000	15231							
	19		085 085	0009	2027	35301	249					15234							
	1 4	1		0013	2027	35301	249		003028	7 0	030	15234							
			STD	0010	2027	3530	249		003028		061	15235							
			SID	0020	2025	3530	249		0030295		091 091	1523							
	3.0	. 7	STD	0033	2025	35304	249		0030290	, 0	O 7 1	1523							
	J c	, ,	085	0050	2024	35304	249		0030361	7 0	151	15240							
	7.0	. 7	SID	0050	2024	35300	249		003036	, 0	191	15240							
	19	1	035 STD	0075	2024	3530	249		0030455	5 0	228	15244							
	1 9	. 7	085	0079	2025	35303	249		000040	, ,		15245							
	1	. 1	STD	0100	2016	3530	249		0030340	0 0	303	15246							
	13	7	085	0101	2015	35298	249		00303			15249							
			STD	0125	1939	3516	250		0029514	+ 0	378	1522							
			STD	0150	1854	3501	251		002861	3 0	451	15209	5						
	19	7	085	0151	185∪	35007	251					15204	4						
	_		STU	0200	1667	3475	254	à.	002630	7 0	988	15155	5						
	19	97	085	10202	1658	34736	254	3				1515.	3						
			SID	0250	1358	3436	258	Ü	002273	7 0	711	1506	1						
			STE	0300	1122	3412	260	7	0020170	0 0	818	1498	5						
	19	7	085	0301	1118	34113	260	7				1498	4						
	1 9	7	OBS	10397	0888	34052	264	2				1491	5						
			SID	0400	0880	3405	264	3	001682	7 1	003	1491	3						
			SID	050J	0662	3406	267	5	001377	1 1	156	1484	5						
	1	97	035	10584	0536	34057	269	1				1480							
			STD	0600	0528	3407	269		001203		285	1480							
			STD	0700	0484	3418	270	7	001078	2 1	399	1480							
	1	27	OBS	0786	0448	34256	271					1480							
			STE	0660	0442	3427	271		000970		りひこ	1480							
			STD	0900	0405	3436	272		000868	7 1	594	1481							
	1	97	085	T0974	038J	34410	273					1481							
			SID	1005	0372	344_	273		000795		677	1481							
			STD	1100	0343	3445	274		000746		754	1481							
			STD	1200	0318	3448	274		000702		826	1482							
			STD	1300	0298	3451	275		000662		895	1483							
			STD	1400	0281	3454	275		000627	1 1	959	1484							
	1.	9.7	OBS	T1465	U271	34559	275	8				1485	2						

NCE ID.	٧,	SHIP	LATITU		LONGIT	บอย	NOC 16	MARSE	RE	(-	ON TH		YE A R			TATIO	N	DEPT		PTH DF		WAVE ERVATION		WEA- THEF CODE	CLOUD			NODS ICITATS 38 WUN	N
NO.	.			1/10	•	1,/10	=	10*	1.	M0 E	AY HR	1,1/10		N	10 1	NUMB	ER	80110	V. S.W	PL*S DI	8	HGT PES	A 3.2	1.000	TYPE A 65	T	-	140 - 00	_
20	0	RT	2817	N	1400	2 w		⊍87	80	011	18 1	98 1	968	N	12 01	2		475	5 1	17 1	6	4 4		×1	3 6			00.	
								Ĺ	WA	ER	W	IND	BAR	0-	AIR TE	M P. *C		NO.		SPECIAL									
									OLOR		DIR.	SPEED	MET	ΕP	DRY	WE		DEPT	0.00	EPVATIO	NS.								
								- 1	CODE	1m1		FOFLE	(mb		BULB	BUL	-+-		-		_								
											19	521	17	73	222	21	7 8	14											
	- A	AESSENG#	CAST	CARD				T .						S PE	CIFIC VOLU	ME	≥ ( DYN. !	,	OUND			PO 4-	P T	01AP	NO2-N	NO3-N	SIO4-	2	
	١.	TIME 0	NO.	TYPE	0	EPTH (m	)	Ţ	C	,	• • • • • • • • • • • • • • • • • • • •	SIGM	7 – A	A	NOW ALT-1	0,	X 10 <sup>3</sup>	V V	ELOCITY	02 1	ni, i	μg = α1		µg - at 1	49 - at 1	уд - ali			Н
	ď	HR 1/10					-			+		-		1				-				+	+			1	1	_	-
				( T	.	2000	- 1	7.0	124	35	2.3	249			03022		0.5.5	0 1	5231					1					
		196		ST1		0000			124		294	249		U	03022	0	000		523										
		196	)	511		0010			26	35.		249		1	03529	i.	000		523.										
		196		085		0013			26		295	240			0 3 0 2 4		000		5234										
		O	,	STI		0050			26	35.		249			03035	1	006		523										
				STI		0030			26	35.		240			03038		009		523										
		196	,	JBS		0036			126		293	249			57470		50,		5238										
		1.0	,	ST		0050			24	35		249		0	03039	i.J	015		523										
		196	,	QBS		0059			22		296	249							5240										
				ST		0075			28	35		249		n	03041	. )	022		5245										
		196		085		0030			32		330	249							5249										
				ST	D	0100		20	32	35	3.3	249	95	0	03051	1	030	4 1	525	)									
		196	,	035		0118			33	35	341	240	9.5						5254										
				ST		0125			105	35.		249	9.6	Q	03029	5	038		5240										
				ST.	5	0150		19	600	35	) 9	251	13	, ,	01921	2	045	4 1	5220	)									
		196	,	085		0176		1.7	19 U	34	898	252	24					1	519	)									
				ST	D	0200		16	77	34	74	253	39	Û	02000	5	059	4 1	5158	3									
		196	)	085	T	0235		15	10	34	532	25€	1					1	5110	0									
				ST	D	0250	1	14	-19	34	45	257	74	0	02330	9	071	9 1	508	2									
				ST	D	0300	}	11	.55	34.	2.2	260	9	J	02002	9	082	7 1	4991	8									
		196	>	055		0348		00	62	34	172	263	3 1					1	493	5									
				ST	Ĺ	0400	ŀ	0.8	35 Ü	34	O 3	264	+6	0	01652	5	101	0 1	490	1									
		196	,	OBS	T	0457	,	0.7	142	340	013	266	0					1	486	9									
				ST	D	0500	ı	06	75	34	).4	267	7 1	0	01413	4	116	3 <b>1</b>	4850	)									
				ST		0600			47	34		269		0	01205	1	129		481										
		196		085		0673			-8∪		155	270							48U										
				ST		0700			+7∪	34		270			101053		1 40		480.										
				ST		0800			-34	34		272		0	00438	ь	150		480										
		196	006 C06 C06 C06 C06 C06 C06 C06 C06 C06	055		0875		-	09		369	273							4801	-									
				ST		0900			102	34.		273			00850		159		481										
				ST		1000			173	34		273		0	00780	10	167		481										
		196	)	085		1089			350		475	274			01.77		. 7-		482										
				ST		1100			347	34		274			00727		175		482										
				ST		1200			323	34		27			100677		102		482										
				51		1300			302	34		279			100637		168		483										
				5 T		1400			83	34		275			00006		195		484										
				ST		1500			96	34		276		0	เบียริสร	2	201	-	485										
		196		055	Τ	1664		0.3	243	34	589	276	53					1	487	3									

ID.	SHIP GODE	LATITU		FONC	SITUDE S	9 5	A PSI	A R E	(	ON TI		YEAR	CRL			TOR'S ATION JM8ER		DEPTH TO BOTTON	DEPTH OF S'MPL'	1 08	WAV SERVA		WEA- THER CODE	CODES			NODC STATION NUMBER
	5.7	2010	1/10	1 . ~			0.			AYH	-	201		-			-		1	1	1		+		1	_	
2 ) ()	PT	3018	N	140	02 W	1.	23	WAT	-	_	OU IND	196	8 N	_	013 TEMI		, 1	4460	15	20	4	4	X l	3 6	I		001
							-		_	-	SPEEC	BA ME	RO-	DR			vis.	NO, 085.		CIAL							
								COLOR	TRANS.	DIR.	FORC	1		BUF		WET BULS	CODI	DEPTHS	OBSER	VATION S							
										18	518	3 1	86	20	0	194	7	14			1						
		of NO.	CARE		DEPTH (m)	,	T	"c	s	٠,,	SIG	M A -T		CIFIC V			△ D YN. M X 10 <sup>3</sup>	SD.	UND OCITY	0 2 ml/			014 L = P	NO2-N ug + at 1	NO3-N vg - o1 l	SI O4−S ug - ol	рн
	HR 1/10	-				-			-				+					+-			+	-					-
			ST	n !	0000		1 1	899	35	1 1	2.6	513	1	028	/, c 5	.   _	ijΩ.O	1.6	195							1	
	20	0	0BS		0000			999 399		110		13	0	020	400	, (	000		195								
	201		085		0000			901		112		512							196								
		_	ST		0010			9 U I	35			512	0	028	523	3 0	028		197								
			ST		0020			9 Ü ]	35			513		028			057		198								
			ST		0030			900	35			13		028			086		200								
	201	0	085		0030		1 4	9 Û ()	35	118	25	513						15	200								
	201	U	OBS		0048		1	899	35	118	25	513						15	203								
			5.1	ĵ	0050		-14	899	35	12	2.5	513	Û	028	564	. (	143	15	203								
			5 T	D	0075		18	898	35	13	25	514	-0	028	546	) (	614	1.5	207								
	200	0	085		0075		1	89 H	35	131	2 9	514						1.5	207								
	20	0	005		0097		1	90J	35	144	25	515						15	211								
			5.1		0100		1	895	35	13	2 9	15	0	028	566	, (	285	15	210								
			ST		0125		-	835	34			519	0	028	292	? (	357		195								
	2.01	0	ORZ		0146			753		833		528							173								
			Ş.T		0150			725	34			531	0	027	17H	4 (	1426		165								
	20	0	085		T0197			437		370		564							078								
			ST		0200			424	34			666		023			554		074								
	2.0	^	ST		0250			224	34			595	0	021	606		067		014								
	20	U	065		0294			074		113		515		0.10	107	, ,			967								
	20	n	\$1 065		0300 T0491			05 <b>7</b> 829	34	11 U31		518 549	U	019	10/	, (	1767		962 892								
	2 131	U	ST		0400			813	34			551	0	015			943		1892 1887								
			ST		0500			654	34			573		015 013			U92		842								
	20	1)	085		T0581			557		02 015		585	0	013	40.6	, ,	042		816								
	20	C.	SI		0500			557 543	34			589	0	012	445	, 1	224		814								
			ST		0700			480	34			705		010			341		806								
	20	0	085		0779			440		240		716	0	0.10	502		J 7 1		·803								
		-	ST		0800			433	34			719	0	009	671	. 1	443		804								
			ST		0900			400	34			729		008			535		808								
	20	0	085		10978			377		412		736			~ ^				812								
	20		085		T1510			268		564		759							857								

SHIP	LATITU	DE L	ONGITUDE	3 A	MARSDEN SOUARE	STA	ION TI		AR (	CRUIS	DRIGINA E S	TATION	4	DEPTH TO	DEPT	H OR	WAVE SERVATIO	NS	WEA-	CODES		2.	NODC
CODE		1/10	1/10		10" 1"	MO	DAY H	R,1/10		ND.		U M 8 E		BOTTON	A S'MPL	*S D18.	HGT PER	SEA	CODE	TYPE A M	T	N	UMBER
RT	3010	8N 1	4003 W	1	23 00	01	20 1	97 19	968	N1	2 01	4		4755	19	5 21	4 2		X1	6 7			001
1						TER	W	IND			AIR TEN	ΛP. °C	T	NO.	<u> </u>		1		,			,	
					COLO	TRANS	DIR.	SPEED	BARO-	₹	DRY	WET		O85.	COLED	ECIAL VATIONS							
					CODE	(m)	J (m.	FORCE	(mbs)		BULB	8018		DEPTHS	`								
							18	513	240		200	19	4 7	14									
MESSENGR	TZACI	CARD				Ϊ.	- /			SPECIF	IC VOLU	ME 3	₹ A D	50	UND		PD4-	-P T	OTAL-P	NO2-N	NO3-N	SI D4-Si	
MESSENGR TIME HR 1/10	NQ.	TYPE	DEPTH (m	"	T *C	,	•/	SIGMA	-1	ANO	MALT-11	2	ΣΥΝ, Μ. Χ 10 <sup>3</sup>	VEL	OCITY	D2 ml/	19 - G		µg + p[/]	ا/10 • وير	νg = ql/l	yg = atri	pН
HK 1/10			+			+		+	_			-		+			+	-					
1		SID	0000		1904	3.5	14	2513	a 1	0.0	2839	0 1	0000	1 1 6	196		1	1	ı		l	1	
197	,	085	0000		1904		137	2513		00	2009	0 1	0000		5196								
19		085	0004		1906		142	2513							198								
• /		STD			1906		14	2513		0.0	2843	5 1	0028		5199								
		STD			1905		14	2514			2842		0057		200								
		STD			1903		15	2514			2842		0085		201								
197	7	085	0033		1903		146	2514			_				202								
-		SID			1903		15	2514		00	2847	3 1	0142		204								
197	7	035	0050	)	1903	35	146	2514	+					15	5204								
		STD	0075		1903	3 >	14	2514		00	2860	3 1	0414	1.5	208								
197	7	055	0077		1903	35	137	2514	4					19	5209								
		SID	0100	)	1901	35	14	2515		00	2862	5	0485	15	5212								
19	7	OBS	0100	)	1901	3.5	142	2515	5					15	212								
		SID	0125	)	1820	34	96	252	1	0.0	2808	0 1	0356	1.5	5191								
		STD	0150	)	1720	34	77	253	1	0.0	2720	B (	0425	15	163								
19	7	OBS	0150	)	1720	34	770	253	1					15	163								
		SID	0200	,	1461	34	37	2559	9	00	2461	8	0555	15	5086								
197	7	085	10201		1456	34	367	2560	)					15	5085								
		SID	0250	J	1231	34	21	2594	+	00	2138	2	0670	15	010								
		STD	0300	)	1047	34	10	2619	9	00	1898	8	0771	14	+958								
197		085	0300		1047		10.	2619							958								
191	7	OBS	T0398		0819		U 26	2650							889								
		STD			0815		U3	265			1602		0946		888								
		STU			0638		0.3	2676		00	1366	1	1094		+835								
19	7	OBS	T0589		0527	-	Ů 26	2689							4805								
		STU			0521		U4	269			1217		1423		+8∪5								
		STD			0473	_	17	270		00	1072	2	1338	_	4803								
19	7	OBS	0783		0439		254	271							4804								
		STD			0433		27	271			0959		1439		4804								
		STD			0402	_	35	272		00	0872	5	1531		+809								
19.	7	OBS	T0978		0380		408	273							4814								
		STD			0.374		41	273			0800		1014		4815								
		STD			0348		44	274.			0755		1692		4821								
		STD			0324		47	2746			0713		1766		4828								
		STD			0303		50	275			0673		1835		4836								
	_	STD			0285		53	275		0.0	0637	(	1901		4846								
19.	f	065	T1491		0270	34	558	275	R					1 4	+855								

	REFERENCE		THUDE	LON	GITUDE 1	MARS	DEN ARE	STATE	ON TIN		re a r	OPIG CRUISE	INATOR STATIC		DEPTH	MAX, DEPTH OF	08	WAVE SERVATIONS	WEA	CODES	S	NODC
	CODE NO. CO				1/10	10*	1.	MO D	AY HP	1/10		NO.			BOTTOM		Dik.	HGT PER SI	CODE	TYPE A M		UWBER
	311200 P	T 29	958 N	14	005 W	067	90	01 2	1 1	96 1	968	N12 0	15		4114	40	30	4 2	X1	6 7	-	0015
							WA.	ER	W		BARO			2114		SPEC						
							COLOR	TRANS.	DIR.	OR				B COD	DEPTHS	OBSERV	ATIONS					
STO   STO						-			13		19	3 200	18	9 7	20							
STU   DUCU   1940   3513   2514   DUCRAS   1940   15195   15195   1510   1610   15197   1510   1610   15197   1510   1610   15197   1510   1610   1610   15197   1510   1610   1610   1610   15197   1510   1610								1						5 A D			-	1.0			 00 0	
STU   STU	MES!				DEPTH (m)	т	°C	5	•/	SIGM	A - T	ANDMALT-	-ITO"	DYN. M	VEL		0 2 ml					pН
196											-		-	X 10"	-							
196								1 25		25.1	, !	0078	. 20	0000	1.5	146						
196		104										00262	24	0000								
196		146										00284	0.5	0028								
STU   D303   1898   3514   2515   0028362   0085   1919		136																				
196		2 0						35	1 🤈	251	4	00283	559	0057	7 15	198						
196												00283	862	0085								
196																						
196		196										00284	. 0. 3	017								
196		100										00284	+80	0142								
196		140										00285	0.5	0 < 1 :								
STD		196																				
196												00284	+6 n	0484	4 15	207						
STD				STO	0125	1	729	34	79	253	30	0027	190	0354								
STD   0200		196	01	35																		
195					-	_	-															
STD   0250   1189   3418   2599   0020824   0058   15001     196												00240	176	0546								
196		195										00.201	2.27	0658								
STD		107										00200	024	00)(								
196		196										00189	586	075								
STD   0400   0845   3404   2647   0016215   0931   14896     STD   0500   0648   3404   2675   0015692   1080   14839     196   OBS   T0598   0520   34038   2691   14804     STD   0600   0519   3404   2691   0012145   1209   14804     STD   0700   0470   3417   2707   0010686   1324   14802     196   OBS   0796   0431   34268   2719   14803     STD   0800   0433   3427   2720   0009561   1425   14803     STD   0800   0402   3435   2729   0008725   1516   14809     196   OBS   0999   0377   34418   2737   2730   000795   1600   14816     STD   1000   0377   3442   2737   000795   1600   14816     STD   1100   0253   3445   2742   0007569   1678   14823     STD   1300   0310   3451   2751   0006762   1621   14839     STD   1300   0291   3453   2754   0006455   1887   14848     196   OBS   11498   0273   34555   2758   0006455   1887   14885     STD   1500   0233   3459   2764   000518   2095   14885     STD   1750   0233   3459   2764   000518   2095   14885     STD   2000   0204   3462   2767   000560   2227   14913     216   OBS   72416   0.74   34646   2773   2774   0004613   2469   14985     STD   2700   0171   3465   2774   0004613   2469   15054     STD   2700   0171   3467   2776   0004437   2695   15065     216   OBS   3425   0152   34675   2777   2776   000437   2695   15065     216   OBS   3425   0152   34675   2777   2776   000437   2695   15065     216   OBS   3425   0152   34675   2777   2776   0004437   2695   15065     216   OBS   33425   0158   34657   2777   2776   0004437   2695   15065     216   OBS   33425   0158   34676   2776   0004437   2695   15065     216   OBS   33425   0152   34675   2777   2776   0004437   2695   15065     216   OBS   33425   0158   34676   2776   0004437   2695   15065     216   OBS   33425   0158   34657   2777		196										0010.										
196		• .0										0016	215	093	1 14	4896						
STD				STD	0500	0	648	34	Ü 4	26	75	00136	592	1 9 8	0 14	4839						
STD   OTNU   O47U   3417   2707   O010686   1924   14802		196	0	ьѕ	T0598	0	520	34	∪38	269	71											
196				STD	0600																	
STD   D800   D430   3427   2720   D009561   1425   14803     STD   D900   D402   3435   2729   D008725   1516   14809     196   OBS   D999   D377   34418   2737   D1906   D190   D190     STD   1000   D377   3442   2737   D007995   1600   14816     STD   1100   D253   3445   2742   D007569   1678   14823     STD   1200   D331   3448   2746   D007162   1751   14831     STD   1300   D310   3451   2751   D006762   1821   14839     STD   1400   D291   3453   2754   D006762   1821   14839     STD   1400   D291   3453   2754   D006765   1887   14848     196   D85   T1498   D273   34556   2758   D006081   1950   14859     STD   1750   D233   3459   2764   D005518   2095   14883     216   D85   T2416   D274   34646   2773   2776     STD   2000   D204   3465   2774   D004613   2469   14985     STD   2700   D171   3465   2774   D004613   2469   14985     STD   STD   D005   D177   3467   2776   D004437   2695   15054     STD   STD   D005   D157   3467   2777   D004437   2695   15054     STD   STD   D005   D157   3467   2777   D004437   2695   15054     STD				STD								0010	586	132								
196		196														-						
196																						
STD   1000   0377   3442   2737   000795   1600   14816		1.0										0008	120	121								
STD   1100   0253   3445   2742   0007569   1678   14823     STD   1200   0331   3448   2746   0007162   1751   14831     STD   1300   0210   3451   2751   0006762   1821   14839     STD   1400   0291   3453   2754   0006455   1887   14848     195   085   71498   0273   34555   2758   14857     STD   1750   0233   34595   2758   0006081   1950   14858     STD   1750   0233   3459   2764   0005518   2095   14883     216   085   71912   0212   34610   2767   14902     STD   2000   0204   3462   2769   0005060   2227   14913     216   085   72416   0.74   34646   2773   2774   0004613   2469   14985     STD   2500   0171   3465   2774   0004613   2469   14985     STD   3000   0157   3467   2776   0004437   2595   15054     STD   3000   0157   3467   2777   216   065   73865   0149   34684   2778   15213     216   085   73865   0149   34684   2778   15213		1.46							_			0007	995	160								
STD   1200																						
STD												0007	162	175	1 14	4831						
195								34	51			0006	762	182								
SID   1900   0273   3456   2758   0006081   1950   14856     SID   1750   0233   3459   2764   0005518   2095   14885     216   OBS   T1912   0212   34610   2767   14902     SID   2000   0204   3462   2769   0005060   2427   14913     216   OBS   T2416   0.74   34646   2773   14972     SID   2500   0171   3465   2774   0004613   2469   14985     216   OBS   2933   0158   34654   2776   15054     SID   3000   0157   3467   2776   0004437   2695   15065     216   OBS   3425   0152   34675   2777   2778   15137     216   OBS   T3865   0149   34684   2778   15213				STD	1400	0	291	34	53			0006	455	188								
STD   1750   0233   3459   2764   0005518   2095   14885     216		195	0	BS	T1498																	
216 OBS T1912 U212 34610 2767 14902 STC 2000 U2U4 3462 2769 0005060 2227 14913 216 OBS T2416 U.74 34646 2773 14972 STD 2500 U171 3465 2774 0004613 2469 14985 216 OBS 2933 U158 34654 2776 15054 STD 3000 U157 3467 2776 0004437 2695 15065 216 OBS 3425 U152 34675 2777 15137 216 OBS T3865 0149 34684 2778 15213																						
STC 2000 0204 3462 2769 0005060 2227 14913 216 0d5 72416 0.74 34646 2773 14972 STD 2500 0171 3465 2774 0004613 2469 14985 216 085 2933 0158 34664 2776 15054 STD 3000 0157 3467 2776 0004437 2695 15065 216 085 3425 0152 34675 2777 216 065 73865 0149 34684 2778 15213												0005	518	200								
216 Ods T2416 0.74 34646 2773 14972  STD 2500 0171 3465 2774 0004613 2469 14985  216 OBS 2933 0158 34664 2776 15054  STD 3000 0157 3467 2776 0004437 2695 15065  216 OBS 3425 0152 34675 2777 15137  216 OBS T3865 0149 34684 2778 15213		16										0005	060	113								
STD   2500   U171   3465   2774   0004613   2469   14985   216   085   2933   U158   34664   2776   15054		2.1										0000	U O U	242								
216		210										0004	613	246								
STD 3000 0157 3467 2776 0004437 2695 15065 216 085 3425 0152 34675 2777 15137 216 065 73865 0149 34684 2778 15213		216										0004	017	2.0								
216		-10										0004	437	269								
216 06S T3865 0149 34684 2778 15213		216								27	77											
216 OBS T3964 U149 34680 2778 15231							_															
		216	0	BS	T 5964	Ų	1149	34	680	27	78				1	5231						

ID.	SHIP .	LATITU	D£ L	DINGITUDE E	MAR	SDEN	\$TAT	ION TIA		EAR	CRU	OPIGIN	OTA1		DEPTH	M A I	H OR	WAVE SERVATIO	NS	WEA-	CLOUD	-		NODC :
NO.	CODE	•	1/10	1/10 2	10*	114	MO D	AY HR	,1/10		N		NUM	BER	8OTTO8	A S.W.P.		HGT PER	SEA	CODE	TEPE ANS	1	,	V U V B E R
1200	RT	2959	8N 1	3957 W	∪86	99	01/2	22 1	94 1	968	N.I	12 01	6		4572	2 19	5 12	3 3		X1	6 6			0016
					,	WA			IND		-1	AIR TE		·c	_	1	1 12	1212		^1	0.0	ı	-	0010
						COLOR			SPEED	METE		DRY	w	VIS.	NO. OBS.	Occen	ECIAL VATIONS							
						CODE	- imi	DIR.	FORCE	(mbs		8UL8	80		DEPTH	. 0025.	VA HON 3							
								13	512	25	4	189	1	61 8	14									
				T			-	1			-		-	× 1 5	1	<u> </u>	T	<b>—</b>						1
	MESSENGE TIME O	LCAST NO.	CARD	DEPTH (m)	1	*C	5	*/**	SIGM	1-1		IFIC VOLU		₹ ∆ D	. SC	OCITY	0 2 ml/	PO 4 =-		OTAL—P	NO2-N µg + at/1	NO3-N	\$104~\$ (0 • gu	рн
	HR 1/10												_	x 10 <sup>3</sup>	1			29 - 5	· ·	, - u ,	py - 001	µg • o1. l	pg - 0)	1
																								-
			SID	0000		879	350	-	251		0.0	2832	2	0000	1 5	188								
	194	+	OBS	0000	1	879		163	251						1 5	188								
			SID			1883	350		251		00	2842	4	0028		191								
	194		085	0010		883		167	251							191								
			STD			088	350		251		0.0	2840	0	0057		192								
	194		085	0029		1879		163	251							193								
	194		STD	0030		879	350		251		00	2843	i C	0085		193								
	194	,	085 STD	0048 0050		882		166	251		0.0			01.3		197								
	194		085	0050		1882 1886	350	J1 J84	251 251		U	2852	. 2	0142		198 202								
	1 74	•	510	0075		1892	35		251		0.0	2862		0014		205								
	194		065	0017		1896		121	251		0.0	12002	. )	0214		210								
	174	•	SID			1880	350		251		0.0	2849		0 < 8 5		205								
			STD			753	348		252			2745		0355		170								
	194		085	0146		657		555	253		U	12149	, ,	0000		5142								
	174	•	STD			1643	346		253		0.0	2648		0422		5138								
	194		085	T0198		462		372	255		0.0	2040	, 0	0 122		0.86								
	1,4	•	SID	0200		451	34		256		0.0	2448	٠,	0550		083								
			STD	0250		215	34		259			02123		0664		011								
	194		085	0291		1065		ووڙ	261	-		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	-	0004		4963								
			STD	0300		1045	340		261		0.0	1904	. 9	0765		+958								
	194		085	T0383		872		046	264			,,,,,		0.02		+907								
			STD	0400	C	831	340	٠4	265		0.0	01613	12	0 7 4 1		894								
			STD	0500	C	628	34(	Ū3	267	8	00	1346	8	1089	14	831								
	194	,	Ohs	T0573		525	340	027	269	0						802								
			SID	0600	C	510	340	07	269	5	0.0	1181	. 1	1215	1 4	801								
			STD	0700	C	)46∪	34	19	271	0	00	1041	. 7	1326	14	+798								
	194		Q85	0769	C	432	342	265	271	Q					14	+799								
			SID	0800	Û	423	34	29	272	2	00	0933	0	1425	14	108								
			STD	0900	C	395	34	37	273	1	0.0	00849	5	1514	14	807								
	194		065	0967	C	378	344	411	273						14	4811								
			STD			37∪	344		273			00783		1596		+813								
			STD			346	344		274			00726		1671		4821								
			STD			324	345		275		00	00678	5	1741		829								
			STD			304	345		275			00647		1808		837								
			SID	1400		287	349		275		00	00626	1	1671		+847								
	194		085	T1459	C	277	345	552	275	7					14	4852								

SHIP	LATITUI		NGITUDE BOUTE	MARS SQU	ARE	((	ON TIN	YE	A.R		TATIO	ис	DEPTH TO BOTTOM	OEPTH OF	08	WAVE SERVATIO		WEA- THER CODE	CLOUD		5	NODC TATION UMBER
		1/10	1/10 - 4	10"	1.	MO D	AY HR.	1710	_	NO. 1	NUMB	369	BUITUM	S,W br	*S D19	HGT PER	SEA	CODE	TYPE AM	т		- DWafk
RT	3003	N 14	000 W	123	00	01 2	3 1	95 19	68	N12 01	7		4115	16	26	5 2		X1	6 3	-		001
				[	WAI	ER	WI	ND	BARO	AIR TE	W.P. *(	C	NO.	SP	ECIAL							
				- 1	COLOR	TRANS.	DIR	OK	METER		W E	I CODE	OBS. DEPTHS		VATIONS							
				}	CODE	11111	0.3		(mbs)													
							07	512	247	19	16	5 7	14			Ц				,	,	
MESSENGR		CARD	DEPTH (m)	,	*c	,	٠4.	SIGMA-	.,	SPECIFIC VOLU	MΕ	₹ A D DYN, M		DNU	0 2 ml/	PO4-		OTAL-P	NO2-N	_NO3-N	\$104-5	ρН
HR 1/10	NO.	TYPE	J			-		310	.	ANOMALY-XI	٥′	x 10 <sup>3</sup>	VELC	OCITY	07	₽9 - O	171	⊌g • at I	μg - at/1	µg - α1/1	hð + a1.	, , , , , , , , , , , , , , , , , , ,
																			_			
	,	SID	0000	1	898	351	.5	2516	. '	002812	1	0000	15	195		'				,		
195		085	0000	1	898	351	54	2516					15	195								
195		085	0009	1	900	351	54	2516					15	197								
		SID	0010		900	351	-	2516		002820	4	0028	15	197								
		STD	0020		900	351		2516		002822		0056		198								
		STD	0030		899	351		2516		002825	8	0085	15	200								
195		OBS	0032	_	899	351		2516						200								
		STD	0050	_	900	351		2516		002833	2	0141		204								
195		OBS	0051		900	351		2516						264								
		STD	0075		901	351		2516		002842	1	0212		208								
195		OBS	0078		901	351		2516						802								
		STD	0100		885	351		2517		002839	6	0283		207								
195		OBS	0101		882	351		2517						206								
		STD	0125		707	347		2532		002697		0352		155								
100		STD	0150		553	344		2547		002561	3	0418		104								
195		OBS STD	0152 0200		542 336	344		2548 2574		002319	6	0540		044								
195		0B5	0200		324	342		2574		002319	4	0,740		340								
190		STD	0250		140	341		2505		00 134		0549		986								
					997	34				002026		-										
195		STD OBS	0300		985	340		2627		001816	I	0745		940								
1 75		STD	0400		835	340		2629 2649		001625	1	0 + 1 7		896								
195		085	0400		824	340		2650		001023	1	0 2 1 7		892								
1 70		STD	0500		645	340		2677		001354	Ω	1066		838								
		STD	0600		508	341		2696		001172		1192		800								
195		OBS	T061J		498	340		2697		0011/2	9	1112		797								
177		STD	0700		459	341		2710		001040	5	1303		798								
		STD	0800		423	342		2722		000933		1401		801								
195		OBS	0821		416	34		2724		500 55	-	. 02		801								
• • •		S1D	0900		399	343		2731		000854	2	1491		808								
		STD	1000		377	344		2738		000792		1573		810								
195		OBS	1034		370	344		2740		, , , , , L	-			819								
		5TD	1100		356	344		2744		000738	3	1650		825								
		STD	1200		335	345		2749		000691		1721		633								
		STD	1300		315	345		2753		000652		1788		841								
		STD	1400		294	345		2757		000619		1852		850								
		STD	1500		274	345		275		000603		1913		858								
195	,	OBS	T1572		260	345		2760						864								

ENCE	SHIP	LATITUS	26	LONGITUDE &	£ 4	ARSDEN SQUARE	STATION (GMT		YEAR		ORIGIN			DEPTH	DEPT		WAVE SERVATIONS	W.E			,	NODE TATION
ID. NO.	CODE		1. 10		2 L.	0, 1,	MO DAY		IEAR	CKI		STATIC NUMB		BOTTO	W S.M. DE		HGT PEP 1	0.00				U.A. BEB
1200	RI	3002	N	140015m	1	23 00	01 24	196	196	8 N	12 01	8		436	9 1	00	2 3	λ.	2 0			0016
,				,		WA	TER	WIND	P.A	RO-	AIR TE	AAP *C		NO.	1		]					• • • •
						COLOR		SPEED	ME.	TER	DRY	WE		OBS.	0.0000	ectal Vations						
						CODE	(m)	FORC		bs)	BULB	BUL			3.		1					
							109	516	5 2	24	183	15	6 7	14								
	MESSENGR	CAST	CARE	DEPTH (m)		т *с	s ·			SPE	CIFIC VOLU	3 14	\$ △ 0	51	DUND	0	PO4-P	TOTAL-	* NO2-4	I NOTEN	SI O4-5	
i	TIME 0	T NO.	TYPE	DEFIN (MI		1 C	,	316	MA-T	A?	NOMALY-E	107	DYN. M.	. VE	LOCITY	O2 m1	≥9 - a+"	µg = 01				PH
1					-		+			_								-		1		
-			ST	D 0000		1898	3514	25	515	٥	02820	1	0000	1	5195							
	196	)	083			1898	35143		15		02010	-	0000		5195							
	196		065			1901	35150		515						5197							
			5 T			1901	3515		515	U	02825	5	0028		5197							
			ST			1900	3515		516		02825		005c		5148							
			ST			1898	3515		516		02826		3055		52 1							
	196	)	085			1898	35145		ilε						5200							
			51			1894	3514	-	515	Ū	02840	15	0141		5203							
	196		055	0050		1899	35142		515						5203							
			ST	D 0J75		1900	3514	25	515	0	01851	7	04.3	1	52.7							
	196	,	065	3078		1900	35 135		14						520R							
	196	,	OBS	0099		1893	35122	2.5	515					1	5209							
			ST	0010 d		1888	3511		515	0	02854	1	0484	1	520a							
			5 T	D 0125		1764	3485	2.5	5.5	0	02755	2	0354	1	517							
	196	)	OBS	0148		1657	34652	2.5	337					1	5143							
			ST			1648	3464	2.5	30	Ç	02652	6	3421	1	5140							
	196	)	OBS	T0199		1445	34364	25	062					1	5081							
			ST			1440	3436		63	Ü	02425	9	0549		5030							
			ST			1232	3420		593	0	02147	4	3563		5010							
	196	)	085			1083	34104		513						4⊊7∪							
			ST			1068	3410		515	0	01937	, C	0765		495-							
	196	)	0 B S			0880	34054		543						4910							
			ST			0845	34,5		548		01630		0943		4900							
			51			0659	34 2		73	0	01395	Q	1095		4944							
	196		083			0559	34 106	_	594						4815							
			ST			0536	3454		569		01235		1226		4811							
	10		ST			0467	3417		706	Q	01065	· O	1541		4801							
	196	)	OBS			0431	34247		715	-	00030		10		4799							
			5.1			0421	3423		721		00938		1441		4850							
	101		\$1			0393	3437		731	0	00047	1	1531		4800							
	196		065			0379	34400		73e	~	00203	,	2 4 2		4800							
			ST			0367	3442		738		00787		161.		4811							
			ST			0343	3445		743		00745		1089		4819							
			51			¢321	3448		747		0.705		1762		4827							
			ST			03.1	3451		751		00566		1630		4835							
	101		ST			0283	3454		755	J	10.630	12	1895		4845							
	196	)	065	T1490		Ù269	34565	2 (	750					1	4854							

		,				,						,													
CTRY ID.	SHIP	LATITU	- 1	LONGI	2 7	200	ARE I	STA	TION T	IME	YEAR	CPUISI		TATIC	N	DEPTH TO BOTTOM	MAX, DEPTH OF		WAVE ERVATI		WEA	CLOUD			NODE
	-		1. 10		1.10	10*	1.	-	-	4R, 1/10		NO.	١	∜U M B	9	BUITUM	S'MPL'S	DIR.	HGT PE	0 SEA	CODE	TYPE AM	Ī	- '	N U IV BER
31120	Q RT	3003	N	1400	- (w	123	00		25	195	1900	Nla	Ŭ1	9		4309	. 5	06	2 6		×1	6 7		1	0019
							W A	ER		WIND	BAR	.0-	AIR TEA	WP. *C	VIS,	NO,	SPEC	CIAL							
							COLOR	TRANS Im1	DIR.	OR FORC	MEI		DRY ULB	BUL	CODS	OBS. DEPTHS	OBSERV								
									06	508	_	3 1	83	16	1 7	14									
	WESSENG		CAR		DEPTH IMI	,	'c		٠	1 516	MA-T	SPECIFI	. volu	ME	≨ △ D	SOL	IND	01/1	PO4	_ P	TOTAL-F	NO2-N	403-N	51 04-5	
	HR 1/10		TYP	E	DEFIN SMI					316	MA-1	ANON	ALT-X1	0'	X 10 <sup>3</sup>		CITY	02 m1/1	ng -		اءاه + وي	µg - 01′1	ا'اه - وير	hå - ot.	
	1	1															Ī								
	1.0	_		T0 '	0000		893	35			16	002	814	5	0000		193								
	19	5	06		0000		893		134		16						193								
	19	e	0B	T D	0010		892 892		15		17	(14) 2	804	6	0028		195								
	1 9	2		TD .	0020		893 -	35	149		17	00	809	2	OAE.		195								
	19	5	06:		0029		893		14+		17	002	007	2	0056		19n 198								
		_		T D	0030		893	35			17	00.	813	u .	0UH4		195								
	19	5	0 B		0049		892		144		17	002	.0.5		00114		201								
	_			T D	0050		892	35			17	m	819	;	0141		201								
	19	5	089		0073		892		147		17	002		*	· - · ː		205								
			5	TD	0075		892	35			17	00.	825	7	0211		200								
	19	5	ÚB5	S	0098	1	893		147		17						203								
			S	T D	0100	1	884	35	13	25	1.8	002	820	G	0282		2.17								
			S	TD	0125	1	775	34	8.0	2.5	27	002	752	G.	0352		177								
	19	5	0B		0149		668	34	694		3.7					1.5	1 - 7								
			_	TD	0150		663	34			38	002	649	В	041-	15	145								
				T D	0200		437	34			63	002	419	6	054t		079								
	19	5	OB:		0202		428		350		65						C 76								
				TD .	0250		203	34			61		007		0658		0∪7								
	1.0	_		T D	0300		023	34			24	001	849	2	0756		950								
	19	5	OBS		0302		017		110		25						948								
	1.0	-		ID .	0400		829	34			48	001	627	8	0430		893								
	19	5	063		10403		824		014		46						892								
			-	TD	0500		031	34			70		361		1079		832								
	19	c	089	TD ,	0600		497	34			96	001	166	8	1206		795								
	19	٦	-	5 I	0700		497 457	34	368		96	0.0.1	030	7	1 2 1 2		795								
	19		0B3		2798		421 423		20 297		23	001	030	/	1316		797								
	1 7	-	SI		0800		423	34			23	0.07	924		1413		800 800								
			5		0900		396	34			31		850		1502		907								
	19	5	083		10993		373		429		38	000	0 0 0 1	0	1202		814								
	19		089		1503		267		565		59						656								

ID. CODE	LATITUDE		IGITUDE PEROTE	MAR SQU	ARE		TION TI (GMT) DAY H		YEAR	CRUISE NO.	5	ATOP"S TATION TUMBER		DEPTH TO BOTTOM	MAX. DEPTH OF S'MPL"	1 "	BSERV	A VE VA TIONS	# EA THER COD	CODE	S		NODC STATION NUMBE
200 RT	30003N	13	9553W	122	09	01	26	196	968	N12	02	0		4389	14	0.4	4 4	. 4	x 2	0 8	3		002
, ,		1	'		WAT	ER	V	UND	BARC	A	IR TEA	лР. °C		NO.	CDE	CIAL	٦'						
					COLOR	TRANS	DIR,	SPEED	METE	R D	DRY ULB	W ET BULS	CODE	OBS. DEPTHS	OBSERV	ATION	s						
					CODE	1,	07	S22	20		72	156	7	13			+						
	-			_		<u> </u>	07	322	140	/   1	12			<u></u>	L-,		4			_			_
MESSENGR TIME OF HR 1/10		APD YPE	DEPTH (m)	1	*C	5	•	SIGM	A-T	SPECIFIC	VOLU ALV-11	ME 3	ΔD YN. M x 10 <sup>3</sup>	. VELC	DCITY	02 m1		PO4~P µg = 01/1	1014L-1	NO2-N ug - at	νO3-ν 1 nO3-ν	\$1 O4=	
	'	STD	0000	,	869	26	0.8			003	700	2 (		, 16	106							}	
196		510	0000		869		000 0077	25 25		002	198	U	0000		186								
1 40		STD	0010		873		0 7 7	25		002	япо	6	0028		186								
196		35	0010		873		1079	25		002	.009	0 (	1028		188								
1.00		SID	0020		872		. u 3	25		002	800	9 (	0056		190								
		STD	0030		871		8 0	25		002			0084		191								
196		BS	0030		871		082	25		002			,		191								
		STD	0050		873		u8	25		002	821	1 (	141		195								
196	J	63	0050		873		U 82	2.5							195								
		STD	0075	1	873	3.5	09	25		002	825	9 (	211		199								
196	0	63	0077	1	873	3.5	0.87	25	17						200								
		STD	0100	ì	872	3.5	U6	25	17	002	840	0 0	282	1.5	203								
196	C	65	2100	1	872	3.5	U76	25	17					15	203								
		STD	0125	1	710	34	7.7	25	33	002	690	1 (	351	. 15	156								
		5TD	0.150	1	569	34	54	25	48	002	553	5 0	· 17	15	114								
196		65	0150	1	569	34	538	25	+8					15	114								
		STD	0200	1	354	34	27	25	74	002	318	3 0	538	1.5	050								
196	0	ВS	020-		346	34	262	25	75					15	048								
		SID	11250		150		18	261	7	002			047		988								
		STD	0300		005		12	26.	8	001	815	4 (	742	14	943								
136		ЬS	2303		998		113	26.	2.8						941								
196		BS.	T 2370		904		J60	264							917								
		SID	0400		849		04	26		001	643	6	1415		901								
19€		85	10414		825		038	26		00:					894								
		STD	9500		713		12	26		001			U67		866								
		SID	0600		599		-20	26		001			197		838								
		STD	0700		501		28	27		001			309		816								
104		STD	0800		419		34	272		000	591	< 1	404		008								
19€		BS CTD	10856		380		375	27:		20.00	4.10	, ,	4.00		793								
		SID	0900		372		39	273		000			489		797								
		STD	1000		353	_	42	27:		000	_		>68		806								
		SID SID	1100 1200		334 315	-	45	274		000			715		815								
		STD	1300		296		51	27		000			783		824 833								
		STD	1400		277		54	275		000					842								
			1-400		411	- 14	J 🕶	21	0	U(1U)	019	フ I	047	14	044								

SHIP	LATITUDE	Li	ONGITUDE AND AND AND AND AND AND AND AND AND AND	SQUAR		STATIO	N TIN	۸E	YEAR			STATIC	N	_	TO	DEPTH OF	085		A TIONS		HER	CODES		- 5	NODC TATION UMBER
1000	1/	10	17/10	10"	1"	MO DA	Y HR.	1/10		N	D. 1	MUMB	R	BC	JIIOM	S'MPL	S DIR	HGT	PER 5	EA	ODE	TYPE AMT	1		UMBER
RT	300041	N 1	39576W	122	09	01 2	7 1	57	1968	N.	12 02	1		4	206	1.3	04	4	4	- 1	X۷	6 8		1	0021
1					WAT	ER	WI	ND	BARG	)- L	AIR TE	MP. *C				S P I	CIAL								
						TRANS.	DIR.	OR	METE	R	DRY BULB	W E BUL	l co	ODE	OBS.										
						$\rightarrow$	04		+	-	161		+	-	14										
TIME	CAST NO.	C A R D TYPE	DEPTH Imi	1 1	2	5 -		SIGA	MA-T				DYN,	Μ.			02 ml/l					NO2-N µg - at/1			рН
HR 1/10				-		-								0				+		<del> </del> —	$\dashv$			-	_
	1	c <b>-</b> 3	1 2004	10	٥	251	9	2.5	1 6	l A	32761	,	ممر	20	15	1 5 0					- 1	- 1			I
, , ,										01	12171	4	000	50											
																_									
15	,									i.i.	12803	9	00:	2.8											
15	7																								
										0	32804	0	008	84	15	194									
15	7		0045	18	79	351	19	25	18						15	196									
		STD	0050	18	80	351	ž.	25	1.8	0	02810	4	014	41,	15	197									
15	7	085	0070	18	83	351	22	25	18						15	202									
		STD	0075	18	83	351	ĉ.	25	1.8	0	02824	7	04.	11	15.	203									
15	7	085	0090	18	84	351	24	25	18						15	205									
		SID	0100	18	25	35Ü	0	25	23	0	02782	6	021	81	15	189									
		SID	0125	1.7	Oυ	347	4	25	3.3	C	02689	1	031	49	15	153									
15	7	085	0135	16	59	340	67	25	37						15	141									
		SID	0150							O	02622	8.9	04	16											
15	7	085	T0183																						
								_					_	-											
										Ü	02/16/2	26	00	51											
15	7									-	2.2.1.		0.7												
										0	01854	+6	0/	44											
15	7					-				_			200	- ·											
	_									Ú	01396	1	10	/4											
15	l .									_	01.17.5	. 7	1	0.											
		_																							
1.5	2									U	0.1048	5 I	13.	23											
12	ſ									0	0007-	. 0	1 4	2.7											
15	7									U	007/5	<i>J</i> 7	1-4	<u>_ 1</u>											
15	1									0	011570	1	15	19											
													-												
													-												
								_						_											
15	7	OBS	T1347		96	345			54	J	0004.	,	10			842									
	Messence   Messence	CODE   CAST	MSSENGE   CAST   CARD   TIME   TIME   TIME   NO.   TIME	MESSENGS   CAST   TYPE   DEPTH  ml	MESSENGS   CAST   STD   OCCUPATION   OCCUP	MESSANG  CAST   NO.	MESSENGS   CAST   TYPE	MESSENGE   CAST   MATER   MESSENGE   CAST   MATER   MESSENGE   MAC   MESSENGE   MAC   MESSENGE   MAC   MESSENGE   MAC   MESSENGE   MAC   MESSENGE   MAC   MESSENGE   MAC   MESSENGE   MAC   MESSENGE   MAC   MESSENGE   MAC   MESSENGE   MAC   MESSENGE   MAC   MESSENGE   MAC   MESSENGE	NET   3000 4N   139576W   122   09   01   27   157   WATER   WIND   COLOR   TRANK   DIM.   MINE   OFFIT   OFFIT   MINE   OFFIT   MINE   OFFIT   MINE   OFFIT   MINE   OFFIT   MINE   OFFIT   MINE   OFFIT   MINE   OFFIT   MINE   OFFIT   O	Note	No.   No.	Note	NET   30004N   139576W   122   09   01   27   1577   1968   N12   021	No.	Note   Note	Note	No.	No.   No.	RT   30004N   139576N   122 09 01   27   157   1968   N12 021   4206   13   04   4   4   1   1   1   1   1   1   1	Note	No.   No.	No.   No.	No.   No.	No.   No.	No.   No.

TABLE IX. Observed and interpolated oceanographic data for stations taken by USCGC WACHU-SETT at Ocean Station NOVEMBER, 28 January–18 February 1968, prepared from NODC Listing No. 31–1205 WC.

ENCE ID.	SHIR		LATITUDI	LO	NGITUDE	VDC18	M ARSDE SQUAR	N E	STAT	ION TI		YEAR	CRU	ORIGIN	ATOR'S	N	DEPTH TO	DEPTH	ОВ	WAVE SERVATIO	NS	W EA-	CLOUE		2.	NODC LATION
NO.	COD	E	. 1	/10	1,10	Z -	10"	1"	MO I	DAY H	R 1./10		N	o. i	ANWBE	R	NOTTON	S'MPL	S DIR	HGT PER	SEA	CODE	TYPE AN	T	N	UNBER
1205	WC	- 1	29525	N 13	959 W			9				968	N	13 00	1		3658	15	24		3		5 3			000
	1						1	WA			IND	T	-	AIR TE		1		ľ	_	1	_	1	1 - 1 -			000
							co	LOR	TRANS		SPEED	METI		DRY	WET	VIS.	NO. OBS.	DRSEP	CIAL VATIONS							
								ODE	(m)	DIR.	FORCE	{mbs		BULB	8018		DEPTHS	0000								
										24	514	14	9	189	18	3 7	14									
	******	ura I								_	T					≤ <u>å</u> D	1			T	.		_		T	
	11100	't 01	NO.	CARD	DEPTH (m	)	1 *C		S	*/**	SIGM	A - T	SPEC	CIFIC VOLU		DYN. M. x 10 <sup>3</sup>		UND OCITY	02 ml/l	PO4~		P + OTAL -P	NO2-N	NO3=N pg - at 1	\$1 O4 - \$1 ug - at 1	ρН
	HR 1	/10				-			-		-					X 10°				1.	+					
													1		1					,						
				STD	0000		18		35		251		0	02796	5	0000		187								
		194		OBS	0000		18			U89	251							187								
	1	194		002	0009		186			091	252							186								
				STD	0010		186		35		253			02783		8500		187								
				STD	0020		186		35		252			02784		0056		188								
				SID	0030		186		35		252		0	02764	4	0084		189								
		194		0B5	0031		186			U 9 3	252							190								
	1	194		OBS	0048		186			332	252			. 7.07	,	0120		193								
				STD	005u		186		35 35		252			0∠792 02786		0139 0209		193								
											252		U	02100	4	0209		195								
		194		OBS	0075		185			032	252							195								
	- 1	194		085	1097		185			092	252		_	- 2770		2 70		198								
				SID	0100		184		35		252			02779		0 - 79		194								
	,			STD	0125		17		34		253		U	02709	1	0347		165								
		194		OBS STD	0145 0150		164		34	648	253 254		_	22.22		0.1.		139								
	,						16						U	02622	8	0414		-								
	,	94		OBS STD	T0193		146		34	394	256 256		0	02347	1	0539		086								
				STD	0250		120		34		259			02347		0052		1007								
	1	94		OBS	0290		106			U94	261		U	02100	-4	0052		964								
				STD	0300		10		34		261		0	01908	3	0752		958								
	1	194		085	T0388		086			048	264			01,00		0.52		937								
				STD	0400		084		34		264		0	01626	4	0929		898								
				STD	0500		064		34		267			01366		1079		837								
	1	194		OBS	T0579		05			022	268			0 1 5 0 0				RU5								
				STD	0600		0.5		34		269		0	01203	4	1207		803								
				SID	0700		046		34		270			01056		1320		798								
	3	194		OBS	0776		04			246	271							798								
				STD	0800		04.		34		272		0	00945	4	1420		799								
				5TD	0900		039		34		272			00867		1511		808								
	1	194		085	T0969		038			453	273		-		-			813								
				SID	1000		03		34		273		0	00803	1	1595		815								
				STD	1100		035		34		274			00764		1673		1823								
				STD	1200		031		34		274			00725		1747		831								
				STD	1300		0.3		34		275			00687		1018		839								
				STD	1400		029		34		275			00649		1885		848								
	1	194		OBS	T1497		02			553	27							857								

REFERENCE						_ ~	MAR	SDEN	STA	ION TI	M E		T	OPIGI	NATO	) <b>P</b> *S		DEPTH	MAY		WAV	E	WEA				NODC
TRY ID.	CODE	LATITU	- 1	LON		DRIFT		IARE		(GMT)		YEAR		RUISE		TION		to BOTTOM	OF	1	SERVA.		THER	e l			TATION
DE NO.	$\perp$		1/10		1/10	-	10"			DAY H			+	NO.		MBER	+		S'MPL	_	+ +	ER SE	^	TIPE A			
31120	5 W C	2957	N	139	9555W		086		-		009	196	8		02		1	4114	1.5	29	, 1		.'	3 6	1	1	0002
								WAT		+	IND		RO.	AIR T	7		vis.	NO. 085.		ECIAL							
								COLOR	TRANS	DIR.	SPEED OF FORC	1	ETER	DRY BULB		VET ULB	CODE	DEPTHS	OBSER	VATIONS							
										32	502	`	00	206	1	94	8	14			1						
	F						_		-	100	302		1	1 200	1 -	٠		_			-						
	MESSENGE TIME	CAST NO.	CARE	D	DEPTH I	lm)	1	*C	s	٠/	SIG	MA-T		PECIFIC VOI		DYF	Δ D.	SOU	CITY	02 ml		4-P	TOTAL-1				
	HR 1, 10		1176										1			X	103	7110	, , , , , ,		- Py	. 0, 1	pg - 0.	ug + at.	μg • α1/	pg - 0	
		1		- 1					1				1													-	
	,		ST	D	000	0		925		14		0.8		00288	81	QC	00		202								
	00	9	OBS		000			925		140		08							202								
			ST		001			1884		Ú9		15		00282	52	0.0	29		196								
	00	Q.	OBS		001			884		094		15			- 0				192								
			5 T		002			1879		U9		16		00281			57		192								
			š٦		003			874		U 9		17		00281	0.8	00	85		192								
	00		OBS		003			1874		090		17							192								
	0.0	9	085		004			868		080		18		00.101	0.5	~ 1			193								
	3.0		ST		005			868		08		18		00281	U5	Ų I	41		194								
	00	.1	OBS ST		007 007			868 868		IJ78 Ũ8		18		00282	04	0.	12		198 198								
	00	0	083		009			1868		079		518		00202	04	0.2	- 1 4		202								
	00	•	ST		010			1865		U7		18		00282	75	0.	82		201								
			ST		012			1776		88		26		00276			352		177								
			ST		015			1671		69		36		00266			+20		148								
	0.0	9	089		015			1667		680		537							146								
			ST		020			1415		31		64		00241	13	0.5	47		071								
	0.0	9	OBS		020			1396		284		666							065								
			51		025			1213		18		595		00212	67	0.6	60	15	010								
			51		030			1044	34	09	2 6	-19		00190	3.2	0.	761	14	957								
	00	9	OBS	5	030	3		L035	34	085	2 t	20						14	954								
			SI	ΓD	040	0	(	1802	34	01	26	552		00159	32	03	36	14	583								
	0.0	9	OB3	5	1040	2	(	798	34	J10	26	552						14	881								
			S 1	ΓD	050	Ū	(	) 627	34	0.3	26	577		00134	77	10	183	14	831								
			S 7	TD.	060	Ų	(	505	34	05	26	594		00118	84	1.	-10	14	798								
	00	9	OB9	5	1060		(	0500		053		595							797								
			S1		070			458	-	18		709		00104			321		797								
			51		080			0421		29		722		00093	Оb	1 4	• 2 U		80ú								
	00	9	089		080			0419		292		723							800								
			S 1		090			393		36		731		00085			10		806								
				TD	100			367		43		739		00070	04	1 :	91		812								
	00	9	0B3		T100			366		432		730							813								
			S1		110			343		48		745		00072			067		819								
			S1		120			321		54		750		00067			736		827								
			51		130			301		55		755		00063			302		836								
			51		140			0282		56		757		00061			364		845								
	0	0		TD	150			265		56		759		00059	0/	1,	925		854								
	00	4	OB:	>	T151	4	(	0263	34	562	2	759						14	856								

FERENCE	SHIP					- ar	MARSE	EN	STATI	ON TH	ΛE	V6 A 0		ORIGIN				DEPTH	MAX. DEPTH		OBSE	WAV RVA	E TIONS		WEA.	CLOUE			NODE
ID,	CODE	LATITU	DE 1-10	LONGI	1710	INDC	10*		MO D		1.110	YE AR	CPUE		STATI NUMI			BOTTOM	OF S'MPL'				ER 56		CODE	TIPE AA	_1		NUMBER
+	E 14 C	2946		14.3	177w		087			_		1908	+	-+			1	4198	15		3.0		_	2		5 5	1		000
120	5  W C	2940	JIN	140.	L//W	1	ار، ٥٠	WAT			IND .	1	-	AIR TE		- 1	-4		1 1 2		<u> </u>	ļ				313	1		000
							1		TRANS		SPEED	BARO		DRY	w		VIS	NO. OBS.	SPE OBSER\	CIAL	N.S								
							1	CODE	(m)	DIR.	FORCE	(mbs		BULB	BU			DEPTHS	COSER	· ~ 110									
										09	Sűb	21	7	189	1	33	7	14											
	MESSENG			T			T					_		ric vou		Ş ∴	\ D		JND			-	4-P	101		NO2+N	210	4 51.04	_5
	TIME	O' NO.	CARD		DEPTH (	m}	7	C	5	٠	SIGN	1 A - T	ANC	MALY	107	DAM	. M.		CITY	03	m1, 1		- 01			ug - 91 1	pg = 12		
	HR 1 1	0							+		+				-							-					-		+
		1			900		1 7 (	129	35	2.1	25	1 4	00	2846	- /-	00	c.s	15	2 54										
	19	16	ST 085		000			224	35,		25		0.0	2040		00	00		204										
	19		065		000			24	35		25								204										
	1 /		5 T		001			24	35.		25		0.0	2836	.4	υō	28		204										
			ST		002			21	35.		25			2828		οŪ			205										
	19	16	UBS		002			920		225	25		- 0						206										
			5.1		003	Ū	1	120	35.	C a.	25	16	00	2620	υÙ	UU	85	15	297										
	19	16	OBS		004		13	18	35.	224	25	16						15	259										
			5 T	D	005	U	1	917	35.	22	25	17	U C	682	7.1	ÜΙ	4.	15	204										
			SI	J	007	5	1	909	35.		25		0.0	2834	+ 3	UZ	1.		211										
	15	16	085		007			909		193	25								211										
	15	16	065		003			367		114	2.5								291										
			ST		010			363	35		25			1261		02			201										
			ST		012			305	34		2.5		0.0	2758	39	03	5 _		187										
	19	,6	063		014			721		331	25		0.0	. 71.7					164										
			SI		015			700	34		25			1260		04			072										
	1.0		51		020			+18 +18	34	33 328	25 25		UC	240	+ _	05	4 /		072										
	19	10	085		T 0 2 0			211	34		25		.0.0	210	0 4	06	40		1009										
	19		5T 08S		025			211 354		107	25		00	12101	O -	00	60		961										
	1.	76	5T		030			347	34		26			190	1 .	0.7	4		958										
	19	) <b>.</b> .	085		T039			344		037	26		0.				٠.		896										
	4 "	• 0	SI		340			335	34		26		0.0	162	44	09	36		595										
			ST		050			543	34		26			136		1.			837										
	19	96	085		1059			519		047	26								80.5										
	-		5 T		060			514	34		26		90	119	3 5	10	15	14	-B02										
			5.1		070		0	462	34	1н	2.7	0.9	0.0	105	16	13	25	14	799										
	19	9.6	065		078	8	U.	425	34	266	2.7	2)						14	799										
			ST	D	080	Ū	0	422	34	28	27	21		093			25		800										
			ST	D	0.50	Ú	0	395	34	30	27		0 (	1685	69	15	15		806										
	19	96	083		098			373		414	27								812										
			ST		100			37ú	34		27			079			97		813										
			ST		110			346	34		2.7			0072			73		821										
			SI		120			324	34		27			0067			43		829										
			ST		130			303	34		27			0064			109		837										
			ST		140			283	34		27		UL	1061	40	10	72		(845) (853)										
	1 '	40	OBS		T148	>	U	268	54	563	27	5.4						14	6022										

	IP LATIT	une l	NGITUDE ES	MARSDEN SOUARE	STATION TI	ME YEAR		ORIGINAT			DEPTH		089	WAVE OBSERVATIONS		CLOUD		NO STA	
NO. COD		1/10	NGITUDE BOOK		MO I DAY HR.I		CRU	D.	STATION NUMBER		80110/	M S'MPL		H GT PER SEA	THER				STATION NUMBER
1205 W	C 300	4 N 14	003 W	123 00	02 05 1	90 196	8 N I	13 00	) 4		4160	13	11	3 4		6 6			000
	- 1		' '	WAT	TER W	IND BA	RO-	AIR TE	MP. "C		NO.	1	CIAL						
				COLOR	TRANS. DIR.	SPEED M	ETER nbs1	DRY BULB	W É BUL			COLEDIA	ATIONS						
					14		90	189	18	3 7	13	1							
111	ENGR CAST ME or NO.	CARD TYPE	DEPTH (m)	т *с	s */	SIGMA-T	SPEC	OMALY-E	JME 19 <sup>2</sup>	≨ Δ C 0γN, Λ x 10 <sup>3</sup>	A. SC	LOCITY	O2 ml/l	PO4-P µg = 01/1	10TAL=P µg = 01/1	NO2-N µg - a1/1	NO3-N ug - ol/l	51 O451	př
					25.50		1												1
		STD	0000	1912	3518	2515	0.0	02828	30	0000		5199							
	190	085	0000	1912	35179	2515						5199				-			
	140	085	0006	1907	35176	2516	_					5199							
		STD	0010	1907	3518	2516		02821		002		5199							
		SID	0020	1906	3517	2516	0 (	02824	+2	005		5200							
	190	OBS	0025	1905	35171	2516						5201							
		STD	0030	1901	3516	2516	0.0	02825	24	008		5201							
	100	088	0042	1890	35131	2517						5199							
		STD	0050	1879	3510	2517	01	02822	25	014	-	5197							
	190	085	0065	1865	35075	2519						5195							
		STD	0075	1863	3509	2520	01	02799	97	021		5196							
	190	085	0084	1860	35095	2521						5197							
		STD	0100	1847	3509	2524		02769		028		5190							
		STD	0125	1826	3501	2523	01	02785	55	035		5193							
	190	085	0126	1825	35000	2523						5193							
		STD	0150	1693	3475	2536	0.0	0267:	3.8	041	9 1	5155							
	190	OBS	T0174	1562	34539	2550					1	5116							
		SID	0200	1394	3434	2571	01	02346	59	054	4 1	5064							
		SID	0250	1147	3410	2601	0	02064	49	065	5 1	4986							
	190	085	0252	1139	34094	2602					1	4983							
		STD	0300	1036	3409	2620	0	0188	74	075	3 1	4954							
	190	OBS	0337	0958	34092	2633					1	4932							
		STD	0400	0815	3410	2656	01	01549	9.2	092	5 1	4889							
		STD	0500	0637	3411	2682	01	01304	40	106	8 1	4836							
	193	085	T0503	0633															
	* '	SID	0600	0531	3412	2696	0.0	0117	16	119	2 1	4810							
	190	OBS	0673	0475	34125	2703						4799							
	-	SID	2700	0464	3416	2707	0.0	01068	8.8	130	4 1	4799							
		510	0800	0424	3428	2721		0094		140		4801							
	19.5	055	T0840	0410	34318	2726						48Ü2							
	* **	510	0900	0390	3434	2730	Ωι	0086	2.8	149		4804							
		STD	1000	0361	3439	2736		0080		157		4809							
		STD	1100	0337	3443	2742		0075		165	-	4816							
		STD	1200	0318	3447	2747		0070		172		4825							
		SID	1300	0304	3451	2752		00166		179		4837							
	190	085	T1330	0301	34527	2753	9		-	1.,		4841							

FERENCE	SHIP					- 2	MARS	DEN	STATIO	MIT_P			01	IGINA	TOR'S		DEPTH	MAX.		WAVE		WEA-	CLOU	0		,	1000
IY ID.	CODE	LATITU			GITUDE	IN DCT	SQU,		IGA			YEAR	CRUISE		ATION		TO BOTTOM	OF	l	BSERVATION		THER	COD			51	ATION
+			1/10		1, 10	-+	10"			Y HR.			NO.	_	UMBER	-		S'MPL'S			SEA	0	TYPE A	MT		-	
1   1 2 0 5	W C	2952	5 N	139	959 W		086		02 06			968		00			4663	15	1 7	13 21			6	5			0005
							ŀ	WA		WIN	SPEED	BARC	· -		P. °C	VIS.	NO. OBS.	SPEC									
								COLOR	TRANS. D	iir, l	OR FORCE	METE			WET	CODE	DEPTHS	OBSERV	A TION S	5							
									1	-+-	504	17	3 19	4	169	7	14			1							
ſ	MESSENG								1			1	1			٠	L			<del></del>		1		Т.	- 7		
	DAG	Q NO.	CAR		DEPTH I	lm I	Ŧ	*C	s */.		\$1G M	A - T	SPECIFIC T		5 5	Δ D N. M 10 <sup>3</sup>	. VELC	DOLLA	O 2 ml	/I PO4-P		TA L → P	NO2-1			1 O 4 - S1 1 Sto - Q1	pH
	HR 1/10	)		-					-	-					- '	103	-	-			+ -				-		
					0.30	_	,	201	25.5		253	. 1					1					-				)	
	10	a	SI		000			886	3505		251		0028	60	( 0	Ü00		190									
	18	8	065 51		001			886 883	3504 3505		251		0028	5 2		3.20		190									
	18	g	089		001			883	3505		251		0026	03.	2 0	029		191 191									
	10	U	S1		002			878	35U1		251		0028	31.		057		191									
	18	8	085		302			875	350		251		0020	71	, ,	- ) /		192									
	10	0	S1		003			875	3508		251		0028	20	5 0	U 8 5		192									
	18	8	OBS		004			875	3507		251		00.20		, ,	• 5 5		195									
		•		<b>r</b> 0	005			877	3508		251		0028	3.2	. 0	142		196									
	18	8	063		007			885	3511		251			_				202									
			SI		007			884	3517		251		0028	29	3 0	213		203									
	18	8	089		009			881	3512		251							205									
		_		rΟ	010			662	3508		252		0026	13	0 0	483		200									
			SI	T D	012		1	773	3400		252		0027			353		176									
	18	8	OBS	5	014		1	702	3476	4	253							157									
			S 1	0	015	0	1	669	3470	)	253		0026	56	) )	420		147									
	18	8	089	5	T019	2	1.	476	3439	2	255	7					15	090									
			S1	0	020			433	3436		25 t		0024	11	0	547	15	077									
			S 1		0.25			198	3419		250		0020	91	0 0	059	15	005									
	18	8	OBS		028			066	3410		26]							953									
			51		030			035	3404		262		0018	87	a ú	759		954									
	18	8	089		1037			571	3400		254							906									
				D	040			827	3404		265		0016			934		893									
		_	S1		050			549	340		267		0013	81	5 l	083		840									
	18	8	069		1057			553	3401		200							813									
			S1		060			533	3405		269		0012			413		810									
	10	0	S1		070			469	3415		270		0010	00	J 1	328		802									
	18	0	059 S1		076			437 426	3424		271		0009		5 1	428		800 802									
			S1		090			398	3436		273		0000			₹20 518		804 808									
	18	0	069		096			381	3440		273		0000	30	→ 1	210		811									
	10	0		r D	100			371	3440		27:		0007	6.5	1 1	٥٥٥		814									
				rD	110			346	3448		27		0007			676		8.1									
				TD.	120			323	3452		276		0006			746		828									
				rD	130			302 302	3454		27		2006			012		836									
				r D	140			284	3455		275		0006			076		845									
	18	0	083		T145			275	3459		275		5550	No. No.		0		850									

E	нір			± 5.	MAPSDEN	STAT	ION TI		EAR	ORIGINA			DEPTH OT	MAX. DEPTH	OB	WAVE	WEA-	CLOUD		<	NODC TATION
	300	LATITUDI	E LON	FILTO TO	10° 1°		DAY H		EAK		L M BER	B	MOTTO	S'MPL"		HGT PER SEA	CODE	TYPE AM			UMBER
) 5	A C	29548	N 13	9507W	086 99	02	08 1	93 1	968	N13 306		4	389	15	15	2 2		2 3			0006
					V√ A	_	+	SPEED	BARC			vis	NO.	SPE	CIAL						
					COLOR	TRANS.	DIR.	OR FORCE	METE (mbs		W ET BULB		EPTHS	OBSER\	ATIONS						
							U0	500	15	6 200	194	. 8	14								
- 1	ESSENGR TIME o	CAST NO.	CARD	DEPTH (m)	1 ,c	S	٠	SIGMA	-T	SPECIFIC VOLUM	7 0	△ D YN, M. x 10 <sup>3</sup>	SOU		O2 m1/	PO 4-P µg = 01/1	fOTA L→P μg + αtrl	NO2-N ug - atri	NO3~N yg - at 1	SI O4-Si ug = of I	рН
								7.5.0		2220 -	1,		1	,							
			SID	0000	1897	34		250		002945	4 (	0000		192 193							
	103	1	OBS	0000	1897 1889		967 05	250 251		002872	0 (	029		193							
	193		510 085	0010	1484	-	0.45 0.45	251		002012	7 (	, 0 2 ,		193							
	Taki	1	510	0020	1883		67	251		002843	6 i	058		195							
			STO	0020	1878		Č S	251		002822		1086		193							
	193		085	0030	1875		U37	251					15	193							
			SID	0050	1875	3.5	ÜЧ	251	8	002817	_ (	142	15	146							
	102	ą.	085	0050	1875	35	U94	251	R				15	196							
			STD	0675	1876	35	12	250		002306	3	1213	15.	1.30							
	193	3	085	0075	1876	35	124	252					15.	200							
			SID	0100	1867	3.5	12	252	1	002797	i- (	1285	15	20.							
	193	3	ÚBS	0100	1867	35	118	252	1				15	202							
			SID	0125	1747	34	<b>b</b> 6	253		002709		352		168							
			STD	0150	1624	34	63	254		002617	7	0415		134							
	193	3	OBS	0152	1620		618	254						131							
			SID	0200	1397		31	256		002374	9 1	) > 4 3		065							
	19	3	085	T0205	1375		281	257						058							
			STD	0250	1177		18	260		002060		0654		997							
			SID	0300	1002	-	10	262		001825	1	751		942							
	191	3	OBS	0305	0 ≥ 8 7		-91	262						937							
			STD	7400	Ú795		. EU	265		UC1573	2	5921		880							
	19	3	065	0405	0736		U21	265		.101211		10-6		877							
			STD	0500	0633		0.0	268		001312		1065									
		_	STD	0600	0514	34	16	271	-	001119	2	1187	14	803							
	19	3	OBS	T0616 0700	0499 0454	3.7	23	271		001004	9	1.43	1 4	796							
			3T0				30	272		001004		1389		796							
	1.0	2	STD	0300	0412		1305 1305	272		000712		F = 111.1		796							
	10	2	085 510	0810 0900	0388		1300 137	273		000841	3	1477		304							
			510	1000	0367		443	273		000041		1550		812							
	19	3	085	1015	0364		441	274		300.00				514							
		-	STD	1100	0347		46	274		000741	8	1534		921							
			STO	1200	U327		449	274		000707		170 <sub>0</sub>	14	829							
			STD	1300	0307		15]	275	1	000673	4	1775	14	8.38							
			STD	1400	0288		153	275		000639	8	1841	14	847							
			STD	1500	0270		+56	275		U1.L006	8	1903		856							
	19	2	085	T1530	0265		564	276	, 9				14	859							

RENCE 10.	SHIP	LATITU	DE L	ONGITUDE SCHOOL	MARSDEN SQUAPE	STA	TION TI		EAR		ATOR'S		DEPTH TO	MAX DEPTH	08	WAVE SERVATIONS	WEA- THEP	CLOUD		51	NODC MIDN
NO.	CODE		1 10	1, 10 ° Z	10" 1	MO	DAY	P,1/10			NUM BE		BOTTON	S'MPL"	D P.	HGT PER SEA	CODE	117E 441	T	N	0.64868
120	5 WC	3004	N   1	.4031 W	123 0	0.2	11	001 1	958	N13 00	7		4663	1.3	2.4	5 4		2 3			100
						VATER	v	v Iti D	BAPO	AIR TE	MP. °C	VIS	NO.	SPE	CIAL						
					COL		S. DIR.	SPEED	M ETER		WET	COD	OBS.	ADCE BY							
						-	36	SÚ3	156		15	_	13	1							
		7			,	_	30	303	170	200	_		-	1		<u> </u>				·	
	MESSENGR TIME	CAST	CARD	DEPTH (m)	1 °C		s ·	SIGMA	1-Y	SPECIFIC VOLU		₹ A D	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	UND	Op ml		QTA L=P	402-5		S1 O4-S1	pН
	HP 1.10	1 700	TYPE					1		ANDWACT-1		r 10 <sup>3</sup>	• EL	OCITY		>g * u*	P3 - 01 1	νg + 01 :	5g + 2, ſ	iyg - at l	
		1			;	1		1			1										
			STO	0000	193	7 3	520	251	0	002871	1	JUUC	) 15	216							
	0.0		OBS	0000	193		5204	251					15	200							
	0.0	1	005	0009	193		520 4	251						206							
			STO		193		520	251		002850		0050		200							
	2.0		STD		192		520	251		001848	6	0057		206							
	0.0	_	085	0028	192		204	251		2524.5		3.10.		2.27							
	00	1	510 085	0030	192 192		520 5202	251- 251-		002845	r)	0786		207							
	00		STE		192		520	251		002858		014		211							
	0.0	1	ÜBS	0069	192		5202	251		0020JA	-	0.14		214							
		-	STO		192		020	251		002067	2	0 < 1 4		215							
	5 C	1	üBS	0092	192		5200	251	4			-		217							
			STE	0100	188	3 3	513	251	ë	072827	5	0485	5 15	207							
			STD	0125	175	9 3	490	253	1	002709	4	0355	5 15	172							
	0.0	1	055	0141	167	5 3	+757	254	0				15	1 +8							
			STD		162		+65	254	4	002589	9	0421	1 15	132							
	0.0	1	OBS	10191	140		1293	256						065							
			STE		135		+27	257		002324		0044		051							
	2.0	,	STD		114		115	260		002015	7	0652		984							
	00	1	085 510	0282	102 098		+100	262		56161	-	3776		945							
	20	1	085	0300	083		4030. 4030.	262 264		001814		0748		936 889							
	0.0	1	STO		076		403	265		001528	5	0915		869							
			STO		058		403	268		001292		1056		814							
	00	1	085	0550	352		4U32	269		-01-2		) (		796							
		-	STO		049		10	269	-	001135	7	1178		793							
			510		043		+23	271		000987		1284		790							
	0.0	1	OBS	0725	042		+256	271						789							
			STO	0800	041	2 3	+29	272	3	000920	Ū	1379	9 14	796							
			STO	0000	039	2 3	434	272	0	000871	7	1469	14	805							
			STD		037		38	273		000823		1554		814							
			STD		035		+42	274		000774		1633		822							
			STO		033		+47	274		000725		1709		831							
	0.0	,	STC		031		+51	275		000675	14	1778		840							
	0.0	1	085	T1304	031	1 3	+516	275	1				14	840							

ERENC!	41HS	LATIT	UDE	LON	ACITUDE POLITICAL	M AR SQU	SDEN ARE	STAT	ION TI		YE A R		TATION	-	DEPTH TD	DEPTH		WAVE SERVATIO	ons	WEA- THER	CLDUD		5	NODC TATION
E NO			1/10		1/10	10*	1 12	MD I	HYAC	2,1/10		NO. n	NUMBER	! '	BOTTOM	S'M PL	S DIB	HGT PER	A 3 2	CODE	TYPE AM	7		UMBER
1 2 0	15 WC	295	8 N	13	955 W	086	99	02	11 2	00 1	968	N13 00	8		4389	15	34	4 2			5 5			0008
				1			WA	TER	W	IND	BARC	AIR TE	MP. "C	7 1	NO.	_		1 - 1 -	,	1	, -,-	'	1	0000
							COLOR	TRANS	DIR.	SPEED	METE	R DRY	WET	CODE	085.	DBSER	ECIAL VATIONS							
							CODE	(m1		FORCE	(mbs		BULB		DEPTHS									
									23	501	20	200	150	8	14									
	MESSEN	CAST	T	PD				T			1	SPECIFIC VOLU	\$	A D	1 501	DND		- 00						Т
	HR 1/1	약 NO.		PE	DEPTH Im1	1	*C	S	٠/٠.	SIGM	A-1	ANOMALY-XI	07 D	YN, M x 10 <sup>3</sup>		CHTY	D 2 ml/	PO4-		07AL-P	NO2-N ug - ot. l	ND3=N yg - 01/I	\$1 D4=\$	ρH
	P. 17.1	•	+			+		+-		<del> </del>								+	-					+
	1	1	! .	STD	0000	,	872	3.5	n a	251	,	002020	3 0	000	1	100					i		1	1
	20	າດ	OE		0000		872		Ú30	251		002839	3 U	000		186 186								
		, ,		STD	0010		867	35		251		002829	в с	028		186								
	20	0.0	OE		0011		866		U 2 7	251		002024	0 0	020		186								
				SID	0020		866	35		251		002831	7 0	057		188								
				STD	0030		866	35		251		002835		085		189								
	20	00	0.6	35	0031		866		0.32	251		00000				189								
				STD	0050		867	35		251		002837	6 0	142		193								
	20	0	0.6	35	0052	1	867	35	040	251						193								
				TD	0075	1	873	35	Ú7	251	. 6	002839	2 0	213	15	199								
	20	0	OE	3.5	0077	1	874	35	Ú72	251	6				15.	200								
				STD	0100	1	869	35	09	251	. 8	002826	2 0	283	15.	202								
	20	0.0	OE		0103		867		387	251	9				15	202								
				STD	0125		851	35		251		002824	0 0	354	15.	201								
				TD	0150		785	34		252		002762	7 0	424	15	184								
	20	0	OE		0156		761		878	252						178								
	2.0			TD	0200		471	34		256		002446	1 0	554		040								
	20	10	0.5		10210		414		337	256		0.0014				072								
				STD STD	0250 0300		243	34.		259		002146		069		0 2 1								
	20	1.0	0.6		0313		063 023	34		261		001906	4 0	770		965								
	20	, ,		TD.	0400		826	34	105	262 264		001615	0 0	946		952								
	20	n	ΟĒ		T0412		802		J21	265		001015	4 0	740		892 885								
				STD	0500		654	34		267		001378	0 1	096		842 -								
				TD	0600		527	34		269		001211		226		807								
	20	0	0.8		10630		498		Ú63	269		001211	0 1	420		800								
				TD	0700		458	34		270		001061	6 1	339		797								
				TD	0800		412	34		272		000927		439		796								
	20	10	0.6		0826		403		301	272		000121	<b>-</b>			797								
				TD	0900		389	34		273		000849	8 1	528		804								
				TD	1000		369	34		273		000790		610		813								
	20	0	0.6		1033		363	-	444	274			- 1			816								
			5	TD	1100	0	35∪	34	46	274	. 3	000745	3 1	686		822								
			3	TD	1200	Ü	330	34	49	274	. 7	000711		759		821								
				TD	1300	0	309	34	51	275	1	000675	0 1	829	148	834								
			5	TD	1400	0	288	34	5.3	275	5	000639	0 1	894	14	847								
		_		TD	1500		267	34		275	R	000601	8 1	956	141	855								
	20	0	0.6	35	T1536	0	259	34	568	276	0				148	858								

REFER	ENCE						- ac	MARS	DEN I	STAT	ION TI	ME		T	ORIGIN	ATOR"	5	$\top$	DEPTH	MAX.		WA	V E	-1	WEA-	CLOUD			NODE
CIRY	ID.	CODE	LATITU	DE	LON	GITUDE	DRIFT	sou	ARE	,,,,,	GMTI		YEAR	CRU	_	TATIO	_		10	DEPTH	ОВ		A TIONS		THER	CODES			STATION
CODE	NO.	CODE		1/10		1/10	3	10°	1"	MO	DAY H	R,1/10		N.	D. 1	NU MBS	R	- 6	BOTTOM	5'MPL'S	DIR.	HGT	PER SE	A	CODE	TYPE A AA	1		NUMBER
31	205	w C	2958	5N	13	900 W		086	99	02	12 1	.95	1968	IN	3 00	9		4	4389	14	26	3	2			1 6			2009
							, ,		WA	ER	W	IND	BAR	<u></u>	AIR TE	MP. °C		Ť	NO.			1							900
									COLOR	TRANS	DIR.	SPEED OR FORCE	MET	£R	DRY BULS	W E T	tcc	IS. DDE	OBS. DEPTHS	OBSERVA									
										-	17	505	-		189	16			14										
			_									700	1 2 2					_				1						Τ	
		MESSENG TIME	CAST NO.	CAR		DEPTH	(m)	Ť	°C	s	٠/	SIG	1-AN		IFIC VOLU		Σ Δ DYN.	Μ,	VELC		0 2 ml/		O4=P g = a1/1		TA L P	NO2=N ug = at/l	NO3=N vg - at/1	51 O4-	
		HR 1/10			`					_				1		_	x 10	0.3	1111	,		- 1		.,,		pg - 0	pg = 0171	Pg - 01	
																						-			1				
					10	000			867	35		25		0.0	2805	6	000	0.0		185									
		19		0.8		000			867		060	2 %								185									
		19	5	ОВ		000			867		060	25								186									
					TD	001			867	35			17		2809		002			187									
		19	-		TD	002			867	35		25		0 (	0 6 0 9	)	005	0.6		188									
		19	-	08		002			867		067	25					0			190									
		1.0	-		TD	003			867	35		2.5		0 (	02810	/	008	34		190									
		19	2	08	7 D	004			866	35	069 37	25 25		0.0	2816	L	014	. 1		192 193									
		19	6	0B		005 006			867 870		062		16	0 (	12010	8	014	<b>1</b>		197									
		1 4	7		a TD	007			869	35			17	0.0	2828	6.	0 - 1	1 1		198									
		19	5	08		009			868		091		19	0 (	12020	0	0 6 1	L		200									
		1 4	-		TD .	010			867	35			19	a c	2815	В	0 2 8	2 >		202									
					TD	012			866	35			20		2814		0.55			200									
		19	5	ОВ		013			865		106	25			,		·			207									
		-			TD	015		_	780	34			29	0.0	2736	5	042	2.1		183									
		19	5	ОВ		1018			556		531	25						_		116									
				5	TD	020		1	474	34	43	25		0.0	2445	1	0 > 5	51		091									
					TD	025		1	236	34			89		2184		006	7		017									
		19	5	ОВ		027			145		090	26								989									
				S	TD	030	0	1	065	34	0.8	26	14	0.0	1946	5	077	7.0	14	965									
		19	5	08	S	T036	0	0	905	34	068	26	40						14	916									
				S	TΟ	040			811	34		26	54	0 (	1576	4	094	16		887									
					ΤD	050			624	34			77	0 (	01354	8	105	43		829									
		19	5	08		1053			569		001		82							814									
					TD	060			519	34	-	_	93		01199		128			804									
					TD	070			454	34			09	0 (	01049	4	133	3 3		795									
		19	5	ОВ		071			446		185	27								795									
					TD	080			419	34			2.2		00935		143			799									
			_	_	TD	090			340	34			33	0.0	00836	2	152	21		805									
		19	5	OВ		1090			389		382		3.3							805									
				-	T D	100			363	34			38		00786		160			810									
				_	TD	110			339	34			43		00742		16			817									
					T D	120			317	34			48		00698		175			845									
			_		TD	130			297		5.2		52	01	00656	6	181	18		834									
		19	5	ОВ	5	T138	2	0	283	34	544	2.7	56						14	842									

EFERENCE	SHIP	LATITU		FONGILIO	0.7	M A R SQU	ARE	(	ION T		YE A F	2	PUISE	5.	TATIO	ų	DEPT	2	MAX, DEPTH OF		OBSE		TIONS	T	VEA- HER ODE	CLOUD		3	NODC TATION
DE NO.		ļ. <u>.</u>	1 10		1, 10	10*	1.	MO C	AY H	R,1/10		$\rightarrow$	NO.	N	UMBE	P	10110	J.M.	S'MPL'S	0	19	HGT	PER SI	A	ODE	TYPE A M	7		Un nen
31 120	)5  w∈	3014	N	13939	v.)	122	09	0.2	13	187	196	8	NIS	010	0		457	12	15	2	20	5	-			9/2			0010
							WAT	ER		VIND	_ B/	ARO-	AIF	R TEN	A.P. °C	VIS	NO.		SPEC	CIAL									
							COLOR	TRANS	DIR.	SPEED	1 ""	ETER nbs1	BUL		W E I	COL			OBSERV	A TIO	NS								
									30	FORC	<del>`</del> +-					-	1.	+			-								
									29	SIC	1.	47	20	0	17	9 8	14	•				,	-		. ,				
	MESSENG TIME HR 1/1	of NO.	CAR		TH Imt	Т	*c	S	٠	SIG	M A = I		ANOMAL			∑ ∆ C DYN. A X 10 <sup>3</sup>	Δ	SOU+		02	mI4		- at-1	IOTA ug -		NO <sub>2</sub> =N μg = σ!	NO3+N µg = 01/1		ρН
					0.00	1		1	0.0	2.5							. ! ,		<b>.</b>			1						ļ	
	1.0	. 7	5		000		840	34			14		0028	555.	3	ijυn:			.76										
	18		OBS		000		840		933		14								75										
	1.8	) /	OB:		010		.840 .840	34	938		14		0028	2 3 1	×	0021		_	. 77 . 77										
					020		84 L	34			16		0028			00 Z 1			74										
	18	3.7	0B:		027		841		962 -		16		0020	· C 1	-	JU 3			. 81										
	10	<i>3</i> /			030		841	34			16		0028	1261	c.	008		151											
	18	27	OB:		043		842		70 964		16		0020	, . 4	,	000			. 84										
	10	, ,			050		842	34			16		0028	3.3.0	2	014			. 85										
	18	3.7	OB:		065		842		963		16		00211	, , , , , ,	_	01.4			87										
	• `	, ,			075		842	34			16		0028	139	3	021			. 69										
	18	3.7	OB:		084		840	_	969		17		0020		-				90										
		, ,			100		832	34			18		0028	327	7	028			90										
					125		819	34			20		0028			335			90										
	18	3 7	0B		125	1	819	34	946		20								90										
			S.	TD 0	150	1	595	34	54	25	42		0026	08	5	042	1 1	151	23										
	18	3 7	QB9	S TO	165	1	481	34	35Ū	2.5	53								187										
			S.	TD 0	200	1	311	34	20	25	77		0022	85	4	054	4 1	50	35										
	18	3.7	OB:	5 0	248	1	121	34	167	26	0.3						1	49	76										
			S	TD 0	250	1	115	34	0.7	26	04		0020	33	0	065	2 1	49	74										
			S.	TD 0	300	0	1980	34	Ú5	26	26		0018	828	4	5741	h 1	149	33										
	18	3.7	0B	5 TO	330	0	800	34	333	26	37						1	49	12										
			5	TD 0	400	0	773	33	9.9	26	54		0015	66	8	091	8 1	148	71										
			5	TD 0	500	0	623	33	99	26	74		0013	75	7	106	5 l	ق⇔ل	129										
	18	3.7	0B:	S 0	500	Ü	623	33	986	26	74						1	148	329										
			S	TD 0	600	C	54J	34	06	26	91		0012	225	Q	119	5 1	48	313										
	18	3 7	0B		693		477		131		03						1	48	303										
					700		473	34			0.5		0010			131			303										
					800		424	34			18		0009	71.	2	141			0.0										
	18	3 7	063		8 <b>5</b> 0		1403		280		23								00										
					900		384	34			28		0008			1>0		148											
					000		351	34			37		0007			159			305										
					100		327	34			44		0007			106			312										
					200		312	34			49		0000			173			323										
					300		1304	34			52		0006	01	8	180			337										
	1.8	3 7	OB:	5 T1	305	0	1304	34	524	2.7	52						1	148	3.8										

TABLE X. Observed and interpolated oceanographic data for stations taken by USCGC ΓΑΝΕΥ at Ocean Station NOVEMBER, 18 February-10 March 1968, prepared from NODC Listing No. 31-1209 RT.

10.	SHIP	LATITUI	1		MARSOEN SOUARE	(GMT)		YEAR C	CRUISE S	TATION	10	DEPTH OF	OBSE	ERVATIONS	THER	CODES		5.1	NODC LATION UMBER
		3018	1 10		10			969			-	3 MIL				1177 200			
1204	"	.7010	W   13	, , , ,	1			<del></del>	A ID TE	M.P. *C	100		L .	4121	1 40	0 0	1		000
					COLOR	TRANS. DIR.	SPEED	METER	DRY	WET CO	O.C.C	OBSERV	ATIONS						
	MESSENGE HR 110  20 20 20 20 20 20 20 20 20 19 RT  MESSENGE HR 110 19 19 19 19 19 19 19 19 19 19 19 19 19				1000			+		-	1.0								
	MERCENCE	T I		Ĭ	T -	1		-											
	SHIP   CAST   TIME   CAST   TIME   CAST   TIME   CAST	TYPE	DEPTH (m)	T °C	5 -/	SIGM.			OYN. x 10	W. VEI		02 ml/l	PO4−P   μg - α1μ1	TOTAL→P µg = at I	NO2=N	NO3-N ug - at 1	yg - at :	pН	
	714 1 10																		-
	SHIP   COOE   CA   CA   CA   CA   CA   CA   CA   C		STD	0000	1850	3496			002838	2 000				'					
	200	)							002846	4 00.2									
	200	)	085	0013	1853	34962			002010	4 002									
			STD	0020	1852	3496													
	200	)							002647	6 000									
			SID	0050	1849	3495	251	3	002859	3 014									
	200	)			1847				002850	. 0.21									
	200	)	085	0087	1830	34913			002078	4 021									
			SID	0100	1827	3491			002850	U 028	5 15	188							
	200	)							002768	0.35									
			STD	0150	1591	3451													
	200	)	OBS	0170	1480	34354			002222	2 45									
	200	)				3420 34100			002322	3 ()24									
			STD	0250	1161	3410					7 14								
	200		STD	0300	1047	3410			001901	0 075									
	200	J				3405			001608	7 093									
	200		OBS	TJ449	0730	34000	266	1			1 4	+863							
ENCE	SHIP   CATITUDE   CARTINE   CAST   CARTINE   CAST   CARTINE   CAST   CARTINE   CAST   CARTINE   CAST   CARTINE   CAST   CARTINE   CAST   CAS				STATION TIA			ORIGIN	ATOR'S		MAX.		WAVE			Ì		NODO	
	SHIP																		TATIOI U 👫 BE
ID. NO		LATITU		1, 10				1000	CRUISE S	TATION NUMBER		S'MPL"			CODE	1	-	N	0 . 01
NO	CODE		1, 10	1, 10	10. 1.	MO DAY HR	1/10		NO. N	NU MABER	80110/	" S'MPL"	DIR	HGT PEP SE	CODE	TYPE A.M			
NO	CODE		1, 10	1, 10	086 99	02 19 1	98 1	968 BARO-	NO. NO. NO. NO. NO. NO. NO. NO. NO. NO.	2 MP. *C	4206	" S'MPL"	25		CODE	1			
	DIR 25	HGT PEP SE	CODE	TYPE A.M															
	NO. NI4 OO DRY BULB	WET CO	4206 NO. 085. DEPTH	SPE	DIR 25	HGT PEP SE	CODE	TYPE A.M											
NO	RT	2958	N 13	946 W	086 99 WAT COLOR CODE	02 19 1 ER W TRANS DIR.	98 1 98 1 IND SPEED OR FORCE S10	968 BARO- METER (mbs)	NO. N14 00 AIP TEI BULB 2 200 SPECIFIC VOLU	VP. ℃ WET SOLB  189 7	420 c NO. 085. DEPTH	STAPL'S  SPEI OBSERV	DIR 25	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
ио	SHIP   CAST	N 13	946 W	086 99 WAT COLOR CODE	02 19 1 ER W TRANS DIR.	98 1 98 1 IND SPEED OR FORCE S10	968 BARO- METER (mbs)	NO. N14 00 AIP TEI BULB 2 200 SPECIFIC VOLU	VP. C WET CO	420 c NO. OBS. DEPTH	STAPL'S  SPEI OBSERV	25 CIAL ATIONS	HGT PER SE	X1	1 4 1			000	
МО	RT MESSENGE TIME	2958	N 13	NGITUDE	10° 1° 086 99 0086 0006	MO DAY HR 02 19 1 ER W: TRANS DIR. 19	98 1 IND SPEED OR FORCE S10	968 BARO-METER (mbs) 179	NO. NO. NO. NO. NO. NO. NO. NO. NO. NO.	NUMBER  2  WP. 'C  WET  CO  BULB  7  189 7	4200 4200 8000 900 900 900 900 900 900 900 900	STAPL*	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
МО	MESSENGR TIME C HR 1/10	2958	CARD TYPE	NGITUDE # 10 10 10 10 10 10 10 10 10 10 10 10 10	10° 1° 086 99 WAT COLOR CODE	MO DAY HR 02 19 1 ER W TRANS DIR. 19 5 1.	98 1 IND SPEED OR FORCE S10	968 BARO-METER (mbs) 179	NO. NO. NO. NO. NO. NO. NO. NO. NO. NO.	NUMBER  2  WP. 'C  WET  CO  BULB  7  189 7	420 to   4	STAPLES SPEC	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
МО	RT RT RESSENGE TIME CHR 1/10	2956	CARD TYPE  STOOSS STO	0000 0010	10° 1° 086 99 WA1 COLOR CODE 1856 1856 1854	MO DAY HR 02 19 1 FR W TRANS DIR. 19 5	98 1 98 1 IND SPEED OR FORCE S1GM 251 251 251	968 BARO-METER (mbs) 179	NO. N14 00 R DRY BULB R 200 SPECIFIC VOLUMANOVALY—11	189 7  ME S 2  ME S 3  ME S 2  ME S 2  ME S 2  ME S 2  ME S 2  ME S 2  ME S 2  ME S 3  ME S 2  ME S 3  ME S 3  ME S 3  ME S 3  ME S 3  ME S 3  ME S 4	4206   4206   66   66   66   66   66   66   66	SMPL   SMPL	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
МО	RT RT RESSENGE TIME CHR 1/10	2956	CARD TYPE  STO OBS STO OBS	DEPTH IMI	10° 1° 086 99 WAT COLOR CODE 1856 1856 1854 1854	MO   GAY   HR   O 2   19   1   ER   W   TRANS   DIR.     19	98 1 98 1 IND SPEED OR FORCE 510 SIGM 251 251 251 251	968 BARO-METER (mbs) 179 A-T	NO. N 14 00 AP TE 18 DRY 8UEB 2 200 SPECIFIC VOLU ANOMALY—11 00 2872	2 VP. 70 VET SULB CO	4206   4206   6   6   6   6   6   6   6   6   6	SMP(1)   15   SPE   OBSEPV   SUND   OCITY   STATE	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
МО	MESSENGA TIME CHR 1/210	2956	CARD TYPE  STD OBS STD OBS STD	DEPTH (m)  0000 0000 0010 0010 0010	10° 1° 086 99 wat cook cook cook 1856 1856 1854 1854 1855	02 19 1 ER W. TRANS DIR. 19 5 %. 3493 3493 3492 3492 3492	98 1 98 1 IND SPEED OR FORCE SIGM 251 251 251 251 251	968 BARO-METER (mbs) 179 A-T	NO. N 14 00 AP TE 18 DRY 8UEB 2 200 SPECIFIC VOLU ANOMALY—11 00 2872	2 VP. 70 VET SULB CO	4200   4200   1000   1400   1400   1500 	SPE OBSEPV	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
МО	MESSENGR TIME CHR 1/10	2958	CARD TYPE  STO OBS STO OBS STO OBS STO	DEPTH Im)	10° 1° 086 99 WA1 COLOR CODE 1856 1854 1854 1855 1855 1855	02 19 1 ER W. FRANS DIR. 19 19 19 19 19 19 19 19 19 19 19 19 19	98 1 98 1 ND SPEED OR FORCE SIGM 251 251 251 251 251 251 251	968  BARO-METER (mbs)  179  A-T	NO. N14 00 AP TET BUT SPECIME VOLUME AND VALVE STEELING AND VALVE STEE	2 VP. C VP.	4200   4200   500   085.   0	5180 5180 5180 5181 5181 5181 5181 5181 5185 5185	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
NO	MESSENGR TIME CHR 1/10	2958	CARD TYPE  STO OBS STO OBS STO OBS OBS	DEPTH Im)	1856 1856 1854 1855 1855 1855	00 6AY HR 02 19 1 FR W. TRANS DIR. 19 5 3493 3493 3492 3492 3492 3492 3492 3492	251 251 251 251 251 251 251	968 BARO-METER (mbs) 179 A-T	NO. 1 NO. 1 NO. 1 NO. 1 NO. 1 NO. 1 NO. 1 NO. 2	2	420c   100	STATE OF STA	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
МО	RT	2958 CAST NO.	CARD TYPE  STO OBS STO OBS STO OBS STO OBS OBS OBS OBS	0000 0000 0010 0010 0010 0010 0020 0020	10° 1° 086 99 WAT COLOR COOF COOF COOF COOF COOF COOF COOF CO	02 19 1 FR W. TRANS DIR. 19 19 5 ° 1. 19 34 92 34 92 34 92 34 92 34 95 34 96 53 4 97 5	251 251 251 251 251 251 251 251 251	968  BARO-METER (mbs)  179  A-T  1	NO. 1 NO. 1 NO. 1 NO. 1 NO. 1 NO. 1 NO. 1 NO. 2	2	420c   420c   100c	STATE OF STA	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
МО	RT	2956 CAST NO.	N   13   N   13   N   13   N   13   N   13   N   N   N   N   N   N   N   N   N	0000 0000 0010 0020 0020 0020 0029 0049 0050 0075	1856 1856 1856 1855 1855 1855 1855 1855	002 19 1 FR W. TRANS DIR. 19 19 3493 3492 3492 3492 3495 3495 3495 3497	251 251 251 251 251 251 251 251 251 251	968  BARO-METER (mbs)  179  A-T  24 44 33 33	NO. N14 00 R AP TEN RULB P 200 SPECIME VOLUME ANOVALY-81 002872 002876 002857	2 2 3 0 0 5 3 0 5 2 3 1 4	420c NO. OSS. DEPTHO 14 SC NO. OSS. THE PHONE SC NO. OSS. THE PHON	SAMPLES    15   SPEC	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
ио	RT	2956 CAST NO.	CARD N 13	DEPTH Im)	10° 1° 1° 086 99 WAT COLOR CODE 1856 1854 1855 1855 1855 1855 1856 1850 1850 1850 1850 1850 1850 1850 1850	02 647 HR 02 19 1 FR W. TRANS DIR. 19 5 * 1. 3493 3492 3492 3492 3494 3494 3494 3494	98 1 NO STEED OF FORCE S10 SIGM 251 251 251 251 251 251 251 251 251 251	968  BARO-METER (mbs)  179  0 0 0 0 1 1 2 2 4 4 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	NO. NI 4 00  NI 4 00	2 2 3 4 5 3 2 1 4 5 5 3 2 1	4200 19 NO. OSS. DEPTH 14 SOCIETY 19 19 19 19 19 19 19 19 19 19 19 19 19	SAMPLES  STATE	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
NO	RT	2956	N   13   N   N   13   N   N   13   N	DEPTH Im1	1856 1856 1856 1856 1855 1855 1855 1855	3493 3493 3493 3493 3492 3492 3494 3494	98 1 NO STEED OF THE PROPERTY	968 BARO-METER (mbs) 179 0 0 0 0 1 1 2 2 4 4 4 3 3 3 5 5 6 4 4	NO. 1 00 PETER VOLUME AND VALUE OF COLUMN OF C	2 2 3 3 4 5 5 3 4 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 3 4 1 6 5 5 5 5 5 5 5 6 5 6 5 6 5 6 5 6 5 6	A200   A200	SMPL!!   15   SPE   OBSEPV	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
NO	RT	2956	N   13   N   N   13   N   N   13   N   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   N   13   N   N   N   N   N   N   N   N   N	DEPTH Im)	1856 1856 1855 1855 1855 1856 1856 1856	3493 3493 3493 3493 3492 3492 3492 3494 3494	98 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	968 BARO-METER (INDIA) 179 0 0 0 0 1 1 2 2 4 4 4 3 3 3 4 4 4 4 7 7	NO. NI 4 00  NI 4 00	2 2 3 3 5 3 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6	ACTION   A	SMPCIC   SPECIAL   SPECI	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
NO	RT	2958	CARD N 13	0000 0000 0010 0010 0010 0010 0010 0029 0030 0049 0049 0073 0075 0075 0107 0125 0147	10° 1° 1° 086 99 WAR COOF	002 19 1 FR W. TRANS DIR. 19 19 19 19 19 19 19 19 19 19 19 19 19	251 251 251 251 251 251 251 251 251 251	968  BARO-METER (mbs)  179  0 0 1 1 2 2 4 4 4 3 3 3 4 4 7 7 19	NO. NI 4 00  NI 4 00	2 2 3 3 5 3 5 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6	ACTION   A	SAMPCION   15   SAMPCION   1	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
МО	RT	2958	N   13   N   N   13   N   N   13   N   N   13   N   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N	DEPTH Im)	1856 1856 1856 1856 1855 1855 1855 1855	3493 3493 3493 3493 3493 3492 3492 3492	1710   98   1   1710   98   1   1710   171	968  SARO-O METER  179  0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NO. NI 4 00    APTE	2 2 3 4 4 5 3 5 5 5 6 6 6 6 7 4 7 6 7 6 7 6 7 6 7 6 7 6 7 6	A 2 U C	SAMPORT   SAMP	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
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МО	RT	2958	N   13   N   N   13   N   N   13   N	DEPTH Im1	1856 1856 1856 1856 1855 1855 1855 1855	3493 3493 3493 3493 3492 3492 3492 3492	98 1 1 NO 988 1 1 NO 1 NO 1 NO 1 NO 1 NO 1 NO 1 NO	968 BAROLE MATER (mbs) 1799 AA-T 1 1 2 2 4 4 4 3 3 3 4 5 5 7 7 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	NO.   NI   00   00   00   00   00   00   00	2 2 189 7 WET SWAND CONTROL OF SWAND CON	A 2 U C	SAMPCION   15   SAMPCION   1	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
NO	1986   1, 1996   1, 1996   1, 1996   1, 1997	\$1.04\$1	000																
МО	SHIP   CANTUDE   CONGIT	0000 0000 0000 0010 0010 0010 0010 001	1856 1856 1856 1855 1855 1855 1855 1855	## 19   19   1   19   19   19   19   19	98 1 10 98 1 251 251 251 251 251 251 251 251 251 2	968 BAROLD METER (mbs) 1799 C C C C C C C C C C C C C C C C C C	NO. N14 00 Representation of the control of the con	2 2 3 4 5 3 5 6 0 4 7 4 0 9 1	A 2 U C	SAMPE   SAMP	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000		
No.	ио₃−и	\$1.04\$1	000																
	NO. NI 4 00    APT TEY	2 300 6 302 5 305 6 04.7 2 024 3 004 1 07.4 105 115 115 115 115 115 115 115 115 115	A2000   A200	SAMPCION   15   SAMPCION   1	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000								
ио	SHIP   COOE   CAST   TIME   O   NO.	CAST NO.	N   13   N   N   13   N   N   13   N	0000 0000 0010 0010 0010 0010 0010 0029 0030 0049 0050 0175 0175 0175 0175 0175 0175 0175	10° 1° 1° 080 99	TAMES   TAME	10   98   1   10   98   1   10   98   1   10   98   10   10   10   10   10   10   10   1	968  8ARO-10  1799  1799  4433  457  677  777  777  777  777  777  777	NO. NI 4 00    APT TEY	2 300 6 302 5 305 6 04.7 2 024 3 004 1 07.4 105 115 115 115 115 115 115 115 115 115	420corporate   420c	SAMPCE   S	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
	TYPE AM 4 1	ио₃−и	\$1.04\$1	000															
NO	SHIP   LATITUDE   COST   CAS	CARD 1778  CARD 1778  STO OBS	0000 0000 0000 0010 0010 0010 0010 0029 0030 0049 0050 0175 0175 0175 0175 0175 0175 0175	1856 1856 1856 1855 1855 1855 1855 1855	## 19   19   19   19   19   19   19   19	98 1 10 98 1 251 251 251 251 251 251 251 251 251 2	968 BAROLD METER (mbs) 1799 C C C C C C C C C C C C C C C C C C	NO. NI 4 00    APT TEY	2 300 0 6 302 1 00.5 2 014 2 02.6 5 02.1 2 02.6 5 04.7 2 02.7 2 02.7 2 02.7 2 02.7 2 02.7 2 02.7 2 02.7 2 02.7 2 02.7 2 02.7 2 02.7 2 02.7 2 0	420c   1420c	SAMPCE   S	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000	
NO	RT	2958	N   13   N   N   13   N   N   13   N	DEPTH Imil	1856 1856 1856 1856 1855 1855 1855 1855	3493 3493 3493 3493 3492 3492 3492 3492 3492 3492 3493 3493 3493 3493 3493 3493 3494 3494 3494 3494 3494 3495 3497 3491	98 1 1 98 1 1 98 1 1 1 1 1 1 1 1 1 1 1 1	968 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	NO. NI 4 00  NI 4 00  Record 1 200  NI 2 200	2 2 2 3 3 3 3 3 4 4 7 3 3 3 3 3 3 3 3 3 3 3 3	420cores   420cores	SAMPE   SAMP	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
ио	RT	2958	N   13   N   N   13   N   N   13   N	0000 0000 0000 0010 0010 0010 0010 0029 0030 0049 0073 0075 0197 0198 0250 029 0300 0198 0250 029 0300 0300 0300 0300 0300 0300 0300	18: 11 086 99  WAT COORE  1856 1856 1855 1855 1855 1855 1855 185	## 19   19   19   19   19   19   19   19	10   98   1   10   98   1   10   98   1   10   98   1   10   10   10   10   10   10   10	968 BAROLD METER (MBS) 1799 CC CC CC CC CC CC CC CC CC CC CC CC C	NO. N. N. N. N. N. N. N. N. N. N. N. N. N.	2 2 3 3 5 5 3 3 5 6 5 3 4 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A 2 U C	SWARCE   S	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
ио	RT	2958	N   13   N   N   13   N   N   13   N   13   N   13   N   13   N   13   N   13   N   13   N	DEPTH Imil	1856 1856 1856 1856 1855 1855 1855 1855	3493 3493 3493 3493 3494 3494 3494 3494 3494 3497	98 1 1 98 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	968 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	NO. NI 4 00    APTEN   PROPERTY	2 2 189 7	420corporate   420c	SWARCE   S	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	000
ио	RT	2958	N   13   N   N   13   N   N   13   N	0000 0000 0000 0010 0010 0010 0029 0030 0049 0030 0049 0030 0049 0030 0049 0030 0049 0030 0049 0030 0049 0030 0049 0030 0049 0050 0073 0075 0076 0076 0076 0076 0076 0076 0076	1856 1856 1856 1856 1855 1855 1855 1855	3493 3493 3493 3493 34924 34924 34924 34924 34924 34932 34924 34932 34932 34933 34932 34933	Page   Page	968 B BARDON METER (mbs) 1799 11122 4 4 4 3 3 3 4 5 4 4 7 7 9 9 5 1 1 1 2 3 3 3 5 5 5 1 1 1 3 3 3 5 5 5 1 1 1 1	NO. NI 4 00    NI 4 00   APT   SUL 9     OC 2872   OC 2876   OC 2854   OC 2854   OC 2654   OC 2541   OC 25	189   7	A 2 U C	SAMPCE   S	25 CIAL ATIONS	HGT FER SE	X1	TYPE AM 4 1	ио₃−и	\$1.04\$1	9н

FEREN	- SHIP	LATITU	ID E	LONGITUDE	MARSDEN	STATION TI	AAE YEAP	-	S'ROTA			MAX. DEPTH	DRS	WAVE	WEA			NOD STATIO	
DE N		LATIN	1110	1/10	10' 1'	MO DAY H			STATION NUMBER		BOTTO 44	OF MPL'S		HGT PE	0000			NUMB	
112	09 RT	2958	3 N :	13958 W	U86 99	02 20 3	196 1968	N14 00	3		4390	14	27	4 5	x 5	6	6	00	0.3
					WA		VIND BAR		_	- VIS	NO.	SPEC	IAL						
					COLOR	TRANS. OIR.	SPEED MET OR (mb		BULB	CODE	DEPTHS 0	)BSERV#	TIONS						
						21	S20 17	19 222	211	7	14								
	MESSEN TIALE HR 1,1	of NO.	CAPD	OEPTH (m)	r *c	s */	SIG M A -T	SPECIFIC VOLU	ME D	∆ 0 YN, M X 10 <sup>3</sup>	VEFOC 2011		O 2 m1/l	PO.	f01AL=F ug = at/1	NO2- ug - of			рН
					2072	2.00	75.05	00707		00-	15.								
			ST		1873	3498	2509	002876	6 0	000									
		96	OBS	0000	1873	34982	2509				151								
	1	96	OBS	0008	1875	34986	2509	007877		0.30	151								
			ST		1875 1872	3499 3500	2510 2511	002877		029									
			STO		1864	35U1	2513	002867		057 086	151 151								
	1	96	0BS	0030	1869	35012	2513	002001	6 0	000	151								
		96	OB5	0049	1871	35034	2514				151								
	1	70	ST		1871	3503	2514	002851	1 0	143									
			ST		1871	3504	2514	002856		415	-								
	1	96	OBS	0075	1871	35038	2514	002070	, 0	417	151								
		96	OBS	0073	1866	35026	2515				152								
	1	70	51		1854	3500	2516	002851	u n	286									
			ST		1759	3482	2525	002766		356									
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			ST		1197	3420	2599	002932		065									
	1	96	OBS	0286	1055	34110	2618	00.002	. 4 0	06)	149								
		70	STI		1026	3410	2623	001865	. a n	763									
	1	96	OBS	10377	0871	34062	2645	00100	, , ,	100	149								
	1	, 0	STI		0815	3406	2653	001579	14 n	936									
			ST		0614	3403	2679	001379		081	148								
	1	96	OBS	10547	0545	34023	2687	301220	, , ,	001	148								
	1		51		0504	3408	2696	001166	4 1	206									
			STI		0443	3418	2711	001028		315		-							
	1	96	OBS		0425	34217	2716	00100		/	147								
	•		5 T		0409	3428	2723	000923	19 1	413									
			ST		0384	3437	2732	000836		501	148								
	1	96	OBS	T0919	0379	34388	2734	.,			148								
	*	. 9	ST		0360	3445	2741	000757	75 1	581									
			ST		0338	3450	2747	000702		654									
			ST		0318	3454	2752	000656		722									
			ST		0299	3456	2756	000626		786									
			ST		0282	3456	2757	000612		848									
		96	OBS	11430	0277	34561	2758			-	148								

	HIP	LATITUE	E 1/10	LONGITUDE ES	MARSOE! SOUARE		STATION TI (GMT)		YEAR	O CRUISE NO.		TOR'S ATION IMBER		DEPTH TO BOTTON	MA DEPT OF S'MP	Н	OBSER	A VE VA TIO	WEA- THER CODE	CODE	5	NODC STATION NUMBER
11209 R	R T	2900	N	13953 W	086 9	9	02 21	196 1	968	N14	004			4755	1	4 2	8 3	3 4	X1	3 5		0004
1 1 1 C 0 7 1		2,00		13733 11,		WAT		VIND	BARO		IR TEM	P. °C	T	NO.	ľ	_	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	,	1 7 1			000-
						LOR	TRANS. DIR.	SPEED OF FORCE	M ETER	0	RY ILB	W E T BULB	COD!	0.00	O DE E	PECIAL RVATION	45					
							21	514	220	2:	33	222	8	14								
	SSENGR TIME (	CAST NO.	CARE		ī °C		s -4.	SIGM	A = T	SPECIFIC	VOLUM	) D1	∆ D 'N. M 1 10 <sup>3</sup>		OCITY	07 1	n1/1	PO4-	101A L = P ug + a1/1	NO2-N ug - of	NO3-N yg - at/1	
				D 0000	200		3522	249	1	0030	0 2 4 5	.	000	. ) 5	225							
	197	7	51 085		200		35219	249		0030	0201	Ü	000		225							
	197		085	-	200		35219	249							226							
	19	,	SI	-	200		3522	240		0030	0.253		030		226							
			51		198	_	3522	240		002			060		224							
	197	7	085		197		35214	250	-	002			• 0 0		223							
		,	ST		197		3522	25		002	9740	0	090		223							
	197	7	OBS		197	6	35221	250							225							
			ST	D 0050	197	16	3522	25.	- 1	002	9736	0	150	1.5	225							
	197	7	OBS		196	7	35205	250							226							
			51	D 6075	196	5	3520	250	. 2	002	9724	0	224	1.5	226							
	197	7	089	0.091	193	5	35176	250	8					1.5	220							
			ST	D 0100	187	3	3507	251	16	002	8468	0	297	1.5	203							
			ST	D 0125	171	.6	3482	253	36	002	6674	0	366	15	159							
	197	7	088	0138	164	2	34707	254	44					1.5	137							
			ST	D 0150	158	3	3462	255	51	002	5241	. 0	431	. 15	120							
	197	7	065	0186	141	Q	34388	25€	9					15	071							
			ST	D 0200	135	9	3433	25	7.7	002	2843	0	551	. 15	053							
			5 T	D 0250	117	3	3418	260	2	0020	0532	9	659	1.4	1996							
	197	7	085	0276	100	3	34130	261	1.3					14	+971							
			SI	D 0300	104	-1	3411	262	2.1	001	8834	0	758	3 14	+956							
	197	7	089	T0365	089	9	34069	264	4 1					1 4	+915							
			S 1	D 1,4	0.82	12	3406	265	5.3	001	5863	3 0	931	14	+891							
			5 T	D 0507	063	30	3404	261	7.8	001	3450	1	078	3 14	+832							
	197	7	023	T0545	056	,7	34030	268	15					14	+814							
			51		0.50	30	3409	265	74	001	191	1	204	. 34	809							
			3.7	D ~7	047	73	3419	270	9 9	001	0574	- 1	317	7 ] 4	+803							
	197	7	065	0733	045	9	34214	27:	1.2					1 4	-8 L 3							
			3.1	D 0870	043	30	3428	272	2.0	000	948	7 1	417	7 14	48U.3							
			51	D 09.	0.39	Q.	3437	27:		000	8542	2 1	507	1 1 4	4808							
	19	7	083	T0914	0.35	6	04379	:	5.2					14	+8 LIG							
	197	7	060	1379 <b>G</b>	0.21	4	34546	279	5													

9 RT 2826	1/10	ACITUDE E	SOUAFE	MO DAY		AR	CRUISE STA	TION MBER	DEPTH TO BOTTOM	OF S'MPL'	1	RVATIONS	cont	TYPE AM	1	2	NODO TATIO IUMBI
	N 14	17 10		02 22		68	N14 005		4750	19		4 4	×1	6 6	1		200
	.   -		V/ A1		DNIW		AIR TEMP.	*c	NO.	<sup>1</sup> ——	الحجا	1 1	1	1 1	1		
			CDLDR	TRANS. DIR	CREED	BARO METER	DRY	100	OBS. DEPTHS		CIAL ATIONS						
			CODE	Im1 17	S12	(mbs1		94 8	14								
MESSENGP CAST			<u> </u>	<u> </u>	<del>-   -</del>	T	SPECIFIC VOLUME	<b>Σ</b> Δ0	50	UND		PO4-P	TOTA L-P	NO2-N	NO3-N	\$104-\$1	T
MESSENGP CAST TIME OF NO. HR 1/10	TYPE	DEPTH (m)	1,0	s */	SIGMA	-T	ANOMALY-X107	X 10 <sup>3</sup>	N. l	DCITY	O <sub>2</sub> ml/1	yg = 01/1	νg = α1/t	µg - at/l	μg - αI/I	yg - al. l	
	STD	1000	1960	3514	2429	,	0029779	0000	15	212			1		l		
196	085	2000	1960	35135	2499					212							
	STD	9010	1961	3514	2499		0029795	0033		214							
196	OPS	0015	1961	35145	2499					215							
	510	0020	1956 1947	3515 3514	2501 2503		0029677 0029497	0060		214 213							
196	STD 085	0039	1947	35144	2504		11112 4441	0009		213							
1 70	STD	2050	1940	3516	2506		0029278	0148		215							
196	OBS	2064	1935	35164	2508		0,2.2.0			216							
• • •	STD	2075	1926	3516	2509		0029032	0221		215							
196	085	0098	1906	35142	2513	3				213							
	STD	0100	1892	3511	2514	+	0028638	0293		209							
	STD	0125	1723	3478	2531	Į.	0027125	0363	15	160							
196	0BS	∩128	1704	34750	2533					155							
	STO	0150	1563	3455	2550		0025318	0428		113							
196	OBS	0192	1345	34294						-46							
	STO	1200	1318	3428	2582		0022404	0547		138							
107	510	0250 0256	1162 1145	341⊆ 34186	2605 2605		0020259	0654		992 987							
196	085 5 <b>1</b> 0	0300	1145	3413	2608		0018721	0752		957							
196	OBS	0384	0862	34054			3010.21	U . J2		933							
	STD	0400	0827	3405	2651		0016042	0925	14	893							
	STD	0500	0642	3401	2674	+	0015855	1079	14	837							
196	085	T0516	0618	34000						829							
	STD	0600	0549	3409	2692	2	0012150	1209		817							
	STO	0700	0481	3419	2708		0010671	1319		807							
196	OBS	T0770	0443	34252			0000000			803							
	STD	0800	0434	3428	2720		0009535	1420		3 ' 5							
	SIB	1388	3398	3435	2739	7	8008535	1511	14	816							
196	OBS	1030	0368	34440 3447	2744		0007386	167		818							
10/	STD	1200	0327	3451 34523	2749		0006894	1743		830							
196 196	OBS OBS	T1283	0310 0212	34523					14	100							

ERENCE	. [		, a	MAR	SDEN	STATE	ON TIA			T	ORIGIN	ATOP'S		DEPTH	1	AX.		WAVE	WEA-				NODC
ID. COD		UDE 1/10	LONGITUDE 11, 10	10*		MOID	SMT)		YEAR	CRUIS	E	OITATE		TO BOTTO	0	OF L		SERVATION	THER	CODES			STATION
1200 PT	295		14003 W	287	+ +				968	N14	+			475		19	3.0	4 5	 x 1	6 7	+		^^
1	1	7.1	1-005 4	1-0.	$\perp$				1	14.4	1	MP. °C		Ļ	4	1 4	2.0	14 /	1 41	011	1		000
					WA			SPEED	BARC		DRY	1	VIS.	, O85.		SPEC							
					COLOR	IRANS.	DIR,	FORCE	(mbs		8ULR	W ET BULE	COE	DEPTH	5 085	SERVA	TIONS						
							17	516	19	3 7	94	13	1 7	14									
		1							_			1	< 1 n	$\vdash$								T	
HR 1	NGR CAST	TYPE		Ţ	°C	5	٠	SIGM	A <b>-</b> T		V ALY-X	10"	X 103 X 103	/. VE	LOCIT		) 2 ml l	PO4=P	OTAL-P	NO2-N ug - atri	NO3-N yg - al/1	51 O4-	
						1								-		,							
		51		_	874	349	-	251		100		5	INU:		134								
1	97	0.85	0000		874	349		250							5136								
		STI		_	874	349		250		0.05	2975	6	.053		519								
1	97	085	0015		474	349 349		251		0.0	1/ 1 =				513								
		ST			872 869	349		250			247 <b>3</b>		0058		518								
1	97	ST 085	n010 n040		866 866	349		250 250		11,7	2909	Ü.	10.87		518 519								
1	- ·	57			847	34 +		251		20.	853	<u>.</u>	14:		515'								
1	97	085	3064		828	34 F		251		111	.000	-1	1.14		215' 519.								
1	4 /	ST		_	827	340		251		00	2854	, ,	nij n		518:								
1	Q 7	285	0000		825	342		251		9512			- 1		51 A.								
_		5 T 1			920	349		251		0.5	846		nzae		518r								
		511			692	346		252			. 7 2 a		12 rc 13 Ru		5141								
1	97	280	0129	1	672	346		253			. 1	1	7.46		514								
-		STI			515	343		254		an.	3563	Δ.	404		503:								
1	2 →	กลร	0194	_	261	339		257				-			5-19								
-		5.71			240	339		257		nn s	23.54	Ε .	54-		5 :								
		< 1			7.54	330		261			14		1555	-	4 c 5 ;								
1	97	085	T 1256		60	934	8.2	260							4959								
		STI			976	343		252		003	855	7 3	1752		• c 3								
1	97	OBS	0383		91c	341		255							402.								
		5.7		-	781	341		265		nr.	5+4	7	923		. 27								
		ST	0 0500		5 17	330		267			351		15 61	14	482.	_							
1	97	0.85	10513	0	596	339	89	267							491	C.							
		SIT	2630	,7	516	340	G,	259	_	000	131	2	1104		430	3							
		ST		C	448	341	7	271	-,	001	1-42	3	ترلاأ	14	479								
1	9.7	085	T0749	٦	422	342	13	271	¢					1	479	1							
		S.T.	D 7800	0	411	342		272		101	فوخا	-	1476	14	473	c.							
		ST	009n	- 0	388	343	-	273		00.	941	3	14 S .,	. 14	497	4							
		ST	D 10no	~	366	344	+	274		00	1771	F	1575	14	491.								
1	3 3	085	1008	0	364	344	4 }	274						1 4	451.								
		ST	D 110.	n	3+1	344	न	274	C.	J J .	7.0	~	1051	1.4	4 ê î	4							
		5.1	D 1200	0	318	345	1	275		00	578	C	172-	14	4ê2	t							
1	97	083			334	345		275							485								
		5.T			297	345		275			`54£		1785		483								
		ST			273	345		275		_	, r J ä		34-		494								
		ST			262	345		276			5 H 7		1 '		465								
		5 T			225	346		27+		0.0	533	-	+ -		423								
1	97	085	T187€	Ü	216	744		276						14	483	~							

SHIP CODE	LATITUD ZOSO	110	NGITUDE NOCE	MARSDEN SQUARE	STATION TI	YEAR R, 1/10	NO. NU	TION MBER	SOLLOW C.	MPL'S DIR	WAVE ISERVATIONS HGT PER SEA		CLOUD CODES		5	NODC TATION LUMBER
	2474	14   14	+003 W	WA COLOR CODE	TER W	96 1968 IND BARI SPEED METI OR Imbi	ER DRY	. 'C	NO.	SPECIAL SERVATIONS		(1	6 6			00n7
MESSENGA TIME O HR 1,110	CAST NO,	CARD TYPE	DEPTH (m)	7 %	\$ */	SIGMA-T	SPECIFIC VOLUME ANOMALY—X107	₹ △ D DYN, M x 10 <sup>3</sup>	SOUNE			TOTAL-P ug - gl/l	NO2-N ug - al/l	NO3=N µg + at/l	\$1 O4~\$1 pg - atri	рН
		510	1000	2010	3501	2476	nr31947	าบถก	1522	4						
196		n P S	0000	2015	35008	2476			1522							
		STD	0010	1891	3502	2508	0028987	0630	1519							
196		085	0010	1891	3501-	2578			1519	3						
		510	00.20	1889	3502	25∩8	0028944	2059	1519	4						
		STD	0.230	1837	3502	2509	0028416	0.038	1519	in .						
196		OR S	1030	1887	35022	2509			1519	5						
		SID	1050	1881	3553	2511	0028815	014c	1519	7						
		SID	0075	1873	3503	2513	0028685	0218	1519	8						
		5 T D	0100	1865	3503	2515	0028657	7495	1520							
196		0 B S	0100	1865	35031	2515			1520	(						
		SID	0125	1678	34+9	2535	012t757	2355	1514	ŧ.						
		STD	0150	1538	3440	2549	0025438	0424	1510	→						
196		085	0152	1529	34442	2550			1517	*						
		SID	0.200	1412	3432	2566	0023974	0547	1507							
196		085	0204	1400	3430 ⇒	2567			1516							
		SID	0.250	1208	3420	2597	0021027	0660	1500							
		SID	0300	1037	3411	2621	0018766	0.75%	1495							
196		085	0304	1025	34103	2623			1495	1						
		STD	0400	0812	3453	2652	0015943	0933	1488	7						
196		OBS	0403	0805	34.,27	2652			14#8							
		STD	0500	0635	34 15	267B	0013480	1087	1453							
		STD	0500	-5.9	3455	2694	0011651	1417	1480							
196		0.B.S	70611	0498	34065	2696			1479							
		SID	0710	0456	3416	2718	0010603	1319	1479	-						
10:		STD	0.000	0413	3427	2721	00003 0	1+15	1479							
196		OBS	0801	04.19	34266	2722		1500	1479							
107		STD OBS	0900 T0994	0384	3436	2731	0008498	1508	1480							
196		510	1000		34428	2733	2007/11	1500	1481							
		STD	1100	0366 0347	3443 3446	273º 2743	0007316	1590	1481							
		STD	1200	0347	3446 3448	2747	0007454	1065 173↓	1482							
		STD	1300	0305	3451	2751	0006734	1808	1482 1483							
		STD	1400	0283	3454	2755	0006734	1873								
		210	Tanc	0200	3474	6 ( ) )	CH110 1 1 4	10/3	1484	0						

TRY ID.	SHIP	LATITU	DE	LONGITUDE	DRIFT	MARSDEN SOUARE	STATION TI	ME YEAR	ORIGINAT	OR'S	DEPTH TO	MAX. DEPTH OF	08	W A V	E TIONS	WEATHER	CLOUD		5	NODC TATION
ODE NO.	.   0001		1/10	1/1	5 <sup>2</sup> ≥	10" 1"	MO DAY H	R,1/10		MBER .	BOTTOM	S'MPL'S	DIR	HGT	ER SEA	CODE	TYPE A AA	Ť	N	UMBER
31120	9 RT	2959	N	14001 W	П	087 90	02 26 1	99 1968	N14 JOB		4290	19	18		5	9.1	6 3			0008
'	'				( )	WA	TER W	IND I	AIR TEMP	·c T	NO.	1		1''	- 1	1	,	1		
						COLOR	TRANS. DIR.	SPEED MET	ER DRY	WET COD	OBS.	OBSERV	JAL ATIONS							
						CODE	tm (	FORCE (mb		UL8	DEPTHS									
							27	523 118	5 194	.72 8	14									
	MESSENGE	CAST	CARD			_ ·			SPECIFIC VOLUME	₹ △ D	1 501	DNL			4~P		NO- N	NO N	110 1	
	*imt	y NO.	TYPE	DEPTH	(m.)	ī °C	5 ./	SIGMA-T	ANDMALY-X107	DYN, N x 10 <sup>3</sup>	VELO	CITY	02 ml/		- of/I	101AL-P	NO2-N pg - 01/1	NO3-N ug - at. l	\$1 O4-\$1 pg = ot/1	рН
	HR 1/10	-				-	+	-	-	10	+	-		-	-		-			
		1	ST	D 000	Ω	1860	3490	2506	0029072	1 0000	1 15	181		-	1					
	19	Q	085			1860	34897	2506	00-0-	0 0 0		181								
			ST			186	3490	2506	0029098	0029		183								
	190	9	OBS	nui		1860	34899	2506				183								
			5 T			1859	3489	2516	0029156	0058		18→								
			ST			1858	3488	2505	1029258	0087		185								
	199	9	085		9	1856	34863	2505				186								
			ST		0	1814	3480	2510	0028851	0146										
	190	Q.	085	006	3	1780	34747	2515			15	166								
			ST	0 007	5	1779	3476	2516	0028431	0217	15	168								
	199	Q	085	034	7	1776	34770	2517			15:	171								
			ST	0.10	0	1774	3477	2518	0028295	0288	15	171								
			ST	0 012	5	1727	3470	2524	0027798	0358	15	160								
	190	0	085	013	0	1724	34672	2524			15	160								
			5 T		0	1569	3442	2539	0026394	0426	15	11:								
	19	G.	OBS	210	Ū	1344	34100	2563			15	43								
			ST			1295	3407	2571	0023497	0551		128								
			5 T	D 025	0	1086	3398	2603	0020455	0661	14	963								
	10	0	085	T025		1075	33972	2604			14	754								
			ST	D 030	0	0 775	3399	2623	0018615	0.758	14	931								
	19	Q	085	038	2	0811	34006	2650			14	883								
			ST	0 040	0	0772	3401	2655	0015528	n927	14	871								
			ST	D 050	0	0595	3401	2680	0013190	1072	14	815								
	199	g.	OBS	T 0 5 1	1	0579	34.14	2682			14	813								
			ST			0520	3411	2697	0011638	1197		805								
			5 T	D 073	Û	0465	3421	2711	0010329	13.5	14:	301								
	199	9	085	тэ77		0429	34279	2720				793								
			5 <b>T</b>			0423	3430	2723	0004256	14.14		801								
			5 T	D V 3 D	Э	0396	3437	2731	0008506	1473		8∩7								
			ST			0370	3443	2739	0007839	15.75		813								
	190	÷.	OBS	103	3	0362	34448	2741			146	816								
			ST			0347	3447	2744	0007351	1651		821								
			ST			0325	3450	2748	0006344	172.	14/	829								
	194	9	OBS			0306	34523	2752				836								
			ST	D 130	0	0304	3452	2752	0005589	1790	1 47	837								
			ST			0286	3454	2755	0006352	1655	14	846								
			ST			0269	3455	2757	0006122	1917	14	8 F 6								
			ST	D 175	0	0232	3458	2763	0005594	2064	14	882								
	199	Q	OBS	T194	4	0211	34602	2767			140	957								

NCE ID.	SHIP	LATITUI	DE	LONGITUDE	CORIFT COCTR	M ARS		STAT	ON TI		YEAR (	RUISE		LTION		DEPTH	MAX. DEPTH	085	WAVE SERVATION		WEATHER	CLOUD		5	NODC TATION
NO.			1/10	11/		10"		MO I				NO.		MBER	- 1	MOTTO	3 WIFL		HGT PE	SEA	+	LIFE AM	Ti		UMBER
500	TAT	2957	7N	1400581	٧ ا	087	95.	0.2 [2	7 2	01 1	968	N14	600		,	A41	14	7.3	1	7	X O	1	1		0000
						ĺ	WA	TER	, v	VIND	BARO-	A	IR TEMP	. °C		NO.		CIAL	' '	•	,				
							COLOR	TRANS	DIR.	SPEED	METER	D		W E T BULB	VIS.	OBS. DEPTHS	OBSERV	ATIONS							
								-	20	507	183	21		194	7	14									
	MESSENGR TIME HR 1/10	CAST NO.	C A RI		l imi	1	*c	5	•4.	SIGM	A-T	PECIFIC	VOLUME LY-X10 <sup>7</sup>	- DY	10 <sup>3</sup>		DCITY	02 ml/1	PO 4		TOTA L-F +Q = q1,1	NO2-N ug - at/1	NO3-N pg - ot/l	\$1 D4\$1 29 - 01	
			. <b>.</b>	D 604	20	1.	5.1.7	3.5		350		2020	224.6	١.	0.0	1,			1						
			ST				714	35		1 250		0029	1000	00	0.0		198								
	201		085 085				914 913	35. 35.		250 250							198 200								
	201		5 T				713	350		250		0029	1067	0.0	29		200								
			ST				911	35		250		0029			58	15									
	201		085				915	350		250		Unit 2	.02.	0.0			202								
			ST				910	35		250		ne. :	53	0.5	37		2:12								
	201		OBS				915	25		250							20%								
			ST		5 C	1.8	800	3.5		250		0028	2400	a i	44		2 12								
	2 1 1		085				847	344		2 - 1						15									
			ST	D 00	75	1.8	345	349	9.8	251	7	0026	1337	na	17	15	190								
	2 (1)		OBS	0.0	94	1 /	R 3.5	349	972	251						15	191								
			ST	D 01	0.0	17	814	349	94	252	0	0028	3119	0.4	87	15	186								
			S.T	D 01	2.5	1	731	348	50	253	1	0027	7163	0.3	5.7	15	163								
	2 11		085	01	42	16	5.64	341	507	253	냭					15	144								
			SI	D 01	0	16	626	340	5.3	254	4	0016	111		23	15	133								
	201		085	101	9.5	1	+17	34	337	256	F 5					15	n71								
			ST			1	3 () ()	34	3.2	257	7	0023	35,35	25	47	150	0.63								
			5 T				151	34	19	260	~	0.050	0.61	0.6	E K,	14	000								
	201	l	085				132	34		262							947								
			SIT				040	34		2€.7		001:	5.15.2	0.7	52		038								
	2.01	i	0 B S				833	34		264							891								
			ST				788	3.4		265			659		30		877								
			S.T				511	34	_	267		00.1	. : 32	10	0.5		824								
	201	l	OBS				537	34		268							8/14								
			ST				513	34.		260		0011		_	91		8 L								
			ST				463	34		27		061.	1676	13	1,4		799								
	30;	E	OBS				438	24.		271		0000	26.20		0.5	_	798								
			S T				421	34.		272		0.005			0.5		799								
	3		ST				3.37	34		273		0018	14/5	14	35		803								
	2:11		085		+4 2.7g		375 283	34	+01	273						14,	906								

REFERENCE					-	MARSDEN	STATION TI	ME		ORIGI:	NATO	P'S	DERT	MAX.		W.	. \/ E			CLOUR	T		
TRY ID.	CODE	LATITU	DE	LONGITUDE	DB1FT INDCT	SOUARE	(GMT)		YEAR		STATI		DEPTH	DEPTH	08	BSERV	A TIONS		WEA-	CODE		512	L. ATIEN
DE NO.	CODE		1/10	1/10	) Z	10" 1"	MO DAY H	R.1/10		NO.	NUM		BOTTOM	S'MPL'	DIR	HG1	PER 5	A 3	CODE	TYPE A U	Y	NU	I V BES
11209	RT	3010	N	13953 W	1	122 39	02 28 0	61 1	968	N14 I1	. 0	i	4270	1.7	2.6			_	Y 1	6 3		Γ	11.
					' '	WAT	ER V	IND	8AR	AIR TI	MP.	°C	NO.			٦' -	1 1						
						COLOR		57EED O8	METI	ER □RY	w		240	OBSERV	CIAL 'ATIONS								
						CODE	[20]	FORCE	(mbs			B0 -	14			-							
							2.17	JII	. '	3 174	1.		14										
	MESSENGR TIME	CAST	CARE		les I	T 'C	5 %.	SIGM	A - T	SPECIFIC VOL		₹ A D DYN. M	sou	JND	0		PO4-P	to	A L-P	NO;+N	NO3-N	5104-51	
	HR 1/10		TYPE	Derin	(10)	' '		310 W		ANOMALT-	1107	x 10 <sup>3</sup>	, AETC	OCITY	03 ml.	' P	g • of 1		- 61 1	ug = al-	ug - at l	µg = o≀ 1	
Ì																							
1			ST			1843	3475	249		1003973	34	6000		174									
	61		085			1843	3475n	249						174									
			ST			1837	3475	250		002964		0030		174									
	-61		065			1937	34748	250						174									
			SI			1833	34 / 1	25		002954		70,50		1.75									
	14.3		5.1			1829	3475	25-		m 2951	-	3. 45		175									
	161		185			1827	34753 3476	250						17t									
			ST			1776		253		01.2873		5447		10-									
	16.1		085			1789	34760	251			_	2 116		100									
			ST OBS			1791	3482	251		101874	1.75	0.18											
	- 61					-	34.132	251						174									
	+		51			1756	3482	251		11,313	. 0	-144		17:									
	· 51		085			1771	34616	25.7						172									
			ST			1689	3465	252		002729		0.158		47									
	161		5T -085			1556	3442	254		n∩2611	. 4	) +.'-		1 /7									
	.01		ST			1479 1259	34305	257		20-20-	. 1	~54E		185 16									
	-61		OBS			1168	33947	25.8		002303	1 1	24.5		986									
	.01		ST			1186	3347	26)		nr 2142	E,	2056	14										
			ST			0953	34-170	262		171818		- 7-, -		-22									
	61		OES			0.889	34037	263						76.4 76.4									
	U 1		ST			0745	3300	265		001526	. 4	3 - 0		860									
	61		085			2670	33989	266		0.11.0				83h									
			ST			0608	3403	268		001323	١	1063		823									
			ST			0516	3410	269		001166		1187		EU3									
	161		OBS			C+78	34142	270						747									
			5.1			0458	3419	271		001130	13	1297		707									
			ST			0420	3429	273		005929		1336		744									
	061		055			0396	34346	273		002.0				<b>せ.</b> こ									
			ST			0390	3436	273		001851		1455		8 j 4									
			ST			0368	3442	273		000789		150.7		812									
	- 61		085			0347	34471	274						8.25									
			ST			0346	3447	274		000732	5	1045		BŽ1									
			ST			0326	3449	274		000703		1715		829									
			ST			0316	3461	275		000673		1784		917									
			ST	D 140	0	0287	3453	275	1/4	0/10/643		1845		R41,									
			ST	D 150	0	0269	3455	275	7	000614		130	141	Rife									
	61		055	1165	9	0243	74574	276	. 2				148	871									

Chill			_ Œ	MARSDEN	STATION TI		ORIGINATO	R*5	DEPTH	MAX DEPTH		VE	WEA-	CLOUD			NODC
CODE	LA TITU!		ONGITUDE ES	SOUARE	(G M I)	YEAR	CRUISE STAT		TO BOTTOM	OF	OBSERV		THER	CODES			TATION UMBER
P RT	2	1/10 N I	1/10 =		MO DAY H		NO. NUA	.00.	+755		DIR HG	PER SE	-	TYPE AM	TI		001
													1	1 - 1		,	001
				COLOR		SPEED METI	R DRY V	VIS. CODE	NO. 085, DEPTHS	SPECIAL OBSEPVATIO							
MESSENGR TIME HP 1/10	of NO.	C ARD TYPE	DEPTH (m)	1 %	s ·/	SIGMA-T	SPECIFIC VOLUME ANOMALY—X10?	₹ △ D DYN. M x 10 <sup>3</sup>	SOUP			PO 4-P g - 01.'I	TOTAL - P ug - al/l	NO2-N ug - al/l	NO3-N µg - 01/1	h0 - a1   21 Q4-21	pH
		STD	1000	1846	3479	2501	0029544	nunn	151	76							
197		085	0000	1846	24786	2501	17112 - 744	001)11	151								
1		518		1849	3478	2500	0029685	0030	151								
19		085	0012	1850	34781	2500	27007	1000	151								
•		STE		1848	3476	2499	0020847	0057	151								
		STO		1842	3474	2499	0029883	0084	151								
191	1	065	0035	1838	34734	2445		, , , ,	151								
-		SIE		1814	347n	2506	0019259	2148	151								
190	)	OBS	0057	1812	34767	2508			151								
		STE	0075	1806	3480	2512	0028745	0 = . 1	151								
190	)	OBS	0091	1801	34821	2515			151	7 H							
		STO	0100	1798	3483	2516	0028451	2626	151	75							
190	5	OBS	0115	1794	34638	251h			151	8.0							
		SIE	0125	1728	3470	2524	0027821	0363	151	61							
		STD	0150	1570	3442	2520	0026416	0431	151	13							
190	)	085	0174	1426	34203	2554			150	64							
		STD	0.020	1269	3407	2575	0023001	1354	150	19							
197	)	OBS	T0233	1106	33949	2507			140	67							
		510	0.250	1064	3397	2606	0020149	0562	149	55							
		STE	0.300	0749	3400	2628	nn18118	975R	149	. 1							
190	)	085	0348	0853	34019	2644			148								
		STO		0769	3399	2656	0015610	0926	148								
190	)	OBS	T0467	0673	33978	2667			148								
		SI		0633	3401	2675	0013712	1073	148								
		ST		0531	3411	2696	0011775	1200	146								
190	.)	OBS	0690	0462	34184	2709			1 4 7								
		STE		0457	3419	2710	0010382	1311	147								
		ST		0415	3427	2721	0009384	1+10	147								
19	)	OBS	0895	0384	34338	2730		15.	148								
		ST		0383	3434	2730	0008576	1500	148								
	-	STO		0360	3441	2738	001 7870	1582	148								
190	)	085	T1078	0349	34450	2743			140	TR							
190	~	OBS	15000	0249	34572	2761											

CE SHIP LA	TITUDE LO	NGITUDE 1/10	MARSDEN SOUARE	STATION T	YE	AR C	CRUISE	STATIC NUMB	IN	DEPTH TO BOTTOM	MAX DEPTH OF S'MPL'S	OBSE	WAVE RVATIONS	0000	CODES	,		NODC OITATIO
09 RT 29		006 W				68	N14 01			4572	15	32	5 5	×1	1. 3			nei
+ 1	ş	1	WA	TER V	ONIN		A 1R T1	MP. °C	:	NO.		<u>'</u>	1 )	ı	' '	1	ı	
			COLOR	TRANS. DIR.	I OR I	BARO- METER (mbs)		WE		200	SPEC OBSERV							
			0000	n 7	SI2	254	1	16		14								
MESSENGE CA	ST CARD TYPE	DEPTH (m)	т *с	s ·/	SIGMA		SPECIFIC VOL		₹ △ D DYN. M x 10 <sup>3</sup>	. VELO		O <sub>2</sub> ml/t	PO4-P µg = a1/1	101AL-P µg = q1/1	NO2-N ug - at/1	NO3-N pg - o1/1	\$1 O4-51	
	STD	0000	1885	3498	2506		002910	16	000n	151	189							
189	OBS	0000	1885	34975	2506						189							
444	SID	0010	1888	3497	2505		002927	· a	0029									
189	OBS	0010	1888	34967	2505		072.61	9		151								
• 0 .	STD	1020	1882	3496	2506		002918	0	0058	15]								
	STD	0030	1874	3496	2507		002706		0038	15)								
189	OBS	0034	1870	34956	2518			,,,	0000		190							
	STO	2050	1849	3491	2511		002888	3	1145	151								
189	085	0053	1846	34904	2510		0 . 2			151								
• •	STD	00.75	1829	3490	2514		002856	3	0217	15								
189	OBS	0082	1821	34893	2516						183							
189	085	0096	1800	34854	2518						179							
_	STD	0100	1777	3481	25.20		002807	5	0438	151	172							
	STD	0125	1642	3456	2533		00.689		0357		133							
	SID	0150	1519	3435	2545		002583		9 + 23	15								
189	085	0158	1482	34297	2549						35							
	SID	0200	1308	3407	2568		002374	. 7	05 47	15	- 32							
183	ORS	T0212	1263	34027	2573					150	19							
	STD	0250	1140	3405	2598		002083	1	0658	140	3.3							
	STO	0300	1000	3406	2624		001851	2	2757	14:	941							
189	nBs.	2314	0965	34363	2630						30							
	STD	0400	0.802	34 1	2651		001544	. 7	0429	149	585							
189	095	10418	0771	34005	2656					148	74							
	STD	0500	0640	34112	2675		001373	2	1077		35							
	STD	1600	0519	3407	2694		001192	2	1.06	148	204							
189	085	T0618	0502	34082	2697					145	608							
	STD	0700	0454	3418	2711		001043	10	1317	147	795							
	STO	രഭരാ	0493	3428	2723		ona922	8	1415	147	794							
189	OBS	0822	0400	343:3	2725					147	795							
	SID	0300	0377	3437	2733		000828	4	1503	147	799							
	SID	1000	0362	2441	2710		201774	6	1583	140	217							
189	085	T1023	0360	34445	2741					148	313							
189	OBS	15270	0262	34564	2750													

SHIP	LATITU	IDE FO	NCHUDE PACE	MARSDEN	STATION T	YEAR		ATION	DEPTH DEPT	Н 089	WAVE ERVATIONS	WEA- THER CODE	CLOUD		12	ODC ATION
		1 10 PN 13	1 10		MO DAY H	86 1968			755 16		HGT PER SEA	X O	TYPE AM	-	_	001
षर	, ,	64 1 13	4-22N						177	11	'	1 ~0	1 10		1 '	
				WAT		SPEED BA		VIS		ECIAL						
				COLOR	TRANS. DIR	SPEED ME		WET CODE	DEPTHS	VATIONS						
					13	514 24	194	183 7	14							
					1	1	SPECIFIC VOLUM	E S A D OYN. M.	SOUND	· ·	PO4-P	FOTAL-P	NO2-N	NO <sub>1</sub> =N	510451	
HP 1 1	R L CAST	C A R D T > P E	DEPTH (m)	f *c	\$ *	SIGMA-T	ANOMALY-X10	DYN. M. x 10 <sup>3</sup>	VELOCITY	O 2 ml/l		pg - 01/1	µg = at/↓	yg • at/ l	νg - σt	p)
			2000	1866	3490	2505	0029193	0000	15183				ļ			
1.8		5T0 085	3000	1856	34900	2505	11054142	0.000	15183							
10	0	SID	1010	1866	3407	2505	0029264	0029	15194							
1.8	6	085	0010	1865	34895	25 75	51 2 201	552	15184							
1 (1		510	1020	1455	74GF	2505	1029271	0058	15136							
		STD	0 /20	1854	3491	25,75	กากจัดอัสน์		15187							
1.8	6	085	2234	1864	34890	2605	_		15188							
111	**	ΤD	5.0	1864	3489	2500	0029373	0146	15197							
1.8	Ь	OBC	121504	1961	34890	2506			15150							
1		STO	70.76	1922	3480	2514	0028542	1219	15182							
1.8	F	CAR	7 64	1 3 7	3445-	1-16			15179							
		0.10	117	17 +++	3481	2517	00.18401	1097	1517							
1.8	1.6	ORC	$\circ$ 1	1272	34773	25.15			15172							
		SID	1.25	1653	3455	,1533	2017215	7350	15136							
		1. T (	6.50	14 -	3427	25.45	500 121	- +26	15085							
1.6	16	085	0163	141+	3+15-	25.53			150e3							
		110	~ 1	1254	3400	75 7 3	0023235	1545	1501-							
16	le.	785	0218	1130	7,1954	258.			14092							
		STO	0.250	1101	3349	2601	0020643	0553	14966							
		510	Uation	- 5,6	3417	2635	001840	2755	14937							
1.8	1.5	OBC	9326	0023	34:41	2625			14917							
		SID	0.400	0784	3390	2553	0015829	7 - 27	14875							
1.8	36	UEC	T11438	0721	33986	2661			14857							
		SID	0500	2439	3403	2677	0013524		14332							
		SID	9400	0516	3410	2647	gn11663	1200	14803							
1 8	3.5	OBS	T 1547	0477	34137	2704			14796							
		2 L U	0700	(46î	3419	271	0010441		14799							
		STO	1800	0433	3438	277	001952		14805							
1 8	36	OB5	0571	041.	34332	27:5	_		14308							
		STD	64 (0)	リサゴチ	3435	2729	@00F73		14610							
		STD	1003	1374	3447	2727	993796.	1585	14815							
1 8	3 ÷	UES	T1:84	0351	3446.4	2743			14820							
		970	11 15	0347	3447	2744	200757.		145.1							
		210	12 10	C323	3449	2748	701		14828							
		210	1300	0301	3451	2 7 5 1	2001686		14835							
		STR	1400	0.783	3451	2754	00.123a		14845							
		< 1 D	15.70	1,166	3455	275	0000100	J.3.0	14854							
1 8	86	OPS	T154.	0.148	34571	17A1			14871							

RY ID.	SHIP	LATITU		LOP	GITUDE	DRIFT	M ARS	ARE		MT)		YEAR	CRUISE		ATION		DEPTH TO BOTTOM	M A Y CEPTH OF	н	OSSE/		ONS	A EA THER CODI	000	2.5		NOE STAT NUM	2N 872
DE NO.			1/10	-	1, 10	-	10*		MO DA				NO.		MBEP	_	-	S'MPL	-	-	1G1 PE	R SEA		I TPE A	_			
11209	P PT	3013	Ν	13	950 W		122	0.9	03   03	3   1 :	85   1	968	N14	014			4207	1.8	1 2	0		-	Y 1	1 : 15			10	ì =
								WA	ER	WI	IND	BARG	) A	R TEM	P. *C	vis	NO.	5.01	ECIAL									
								COLOR	ZNAST	DIR.	SPEED	METE	R DI		W E T BULS	COD	DEPTHS	OBSER		NS								
							,	CODE		-	FORCE C 1 7	5.3 (mbs			170	c				-								
										20	S17	1 4 3	/ 13		1		1 4											
	MESSENC TIME HR 1/1	CAST NO.		RD rPE	DEPTH	(m.)	Т	°C	\$ *-	٠,	SIGM	1 A - T	SPECIFIC ANOMA	VOLUM L1-310	£ 0	X 10 <sup>3</sup>	SO1	D CITY	C2	-11	PO.	-P	FGT4 (= 5	**O2-*	40)- 99-0	- N   Si	04-51	
					non	0	١,	857	348	,	250	. 1	2029	h 1 c	1	0.50	1 15	170										
	18		U.B.	(T)	000			857	348		250		1323	0.1		0 )		179										
	1.5			TD.	201			857	348		25		0029	h-20	n	03^		181										
	18	5	08		001			857	348		25		, 2	0 2		0 5		181										
	10			CTS	102			856	348		25		0029	1575	,31	JĘG		182										
				STD.	203			850	343	-	250		2029			ÚЯ÷		182										
	18	6	0.8		203			845	348	_	250				~			181										
	10			TO.	005			821	347		250		nag-	154	~	149												
	18	c	0.9		005			811	347		251		_					175										
				TD	007			806	348		251		0028	ec.	Э	<u>.</u>		177										
	1.8	5	ΩĐ		008	9	1	902	348	76	251	F					1.5	17F										
			5	TD	0.10		1	787	3479	7	25!	16	0028	454	0	_91	. 15	175										
	18	5	0.8	15	011	6	1	747	347	20	25%	2.1					15	165										
			S	TD	012	5	1	697	3460	4	253	16	0027	55)		361	. 15	151										
			5	TD	015	0	1	561	344	3	254	4.2	0.036	149	0	+ ] P		111										
	18	5	0.5	15	017	3		436	342	51	25							~ 73										
			5	TD	020			275	341		25		00-	5	-	5 5 1												
	18	5	CF	35	T 1 2 3			111	339		259							969										
			5	T D	n 25			082	339		26'		0050			9 5 6		961										
				TD.	130			990	3401		26:		0018	3754	^	757		035										
	18	5	0.5		035			878	340.		260							9.75										
				TD.	140			782	3401		265		JU13	726	, i	336		P 75										
	1.8	5	0.6		T046			665	339		256							8 3 5										
				CT	150			521	340		26		2013			176		628										
		_		STD				525	341		263		301	. 100		_ 1		P 0 7										
	18	5	0.5		T068			463	341		276		0016		,	2 1		795										
				TD	0.70			459 428	342		27		2010			31,		813										
				STD STD	0.80 0.90			420 398	343		277		202			41)0		818										
	1.0				0.0.5			392	343		27			, , -		4 , .		9.0 609										
	1.8		O.E	STD	100			300	344		27		300	7971	1	581		F1:										
				STD	110			343	344		274		0.001			201 201		919										
	1.6	15	0.6		T115			328	344		27				. 1			423										
	1.0			STD	120			318	344		27		000:	.91	. 1	729		326										
				5 T D	130			796	245		27		2006			795		93										
				STD	140			277	345		27		30.4			86)		842										
				STD	150			259	345		27		3000			92.		851										
				STO	175			226	345		27		0015			OAH		38										
	18	3.5		35	178			223	345		27							9.84										

FERENCE Y ID.	SHIP	LATITU	1	LONGITUDE	DRIFT INDC19	MARS SOUA	A R E	(	(ON T		YEAR	CRUI!		TATION UMBER		DEPTH TO BOTTOM	DEPT OF	TH .	082	WAV ERVA	TIONS	WEA	R C	ODES		1 9	NODC TATION TUMBER
NO.			1/10	1/10	-	10"				R,1/10		1	_		-+		2,W b.	$\top$			-		_	_	-		
11209	RT.	2953	N	13943 W	$t \mid -1$	086	_				1968	N1				4572	0	9	30	7	3	X.	L I &	B   3			0015
						-	W A1		- '	WIND SPEED	BARC		AIR TEA		vis.	NO. 085.		PECIA									
							COLOR	TRANS.	DIR.	OR	771616		DRY BULB	W ET	CODE	DEPTHS	08251	RVAT	IONZ								
						-	-		32	518	_	4	172	150	8	14											
		_						1		1	1 20			_	1	Ψ,		1	_	_		Ī	1	T			T -
	MESSENGI TIME HR 1/10	Y NO.	CAR		(m)	T	*c	\$	•/	SIG	M A -1		FIC VOLUE	(*   D	YN. M x 10 <sup>3</sup>		DCITA	0	2 ml/l		- 01 ()	101AL- pg - of		) 2 – N - at i	NO3-N	\$1 O4=\$	
														1									1	1			
	,		s	TD 000	0.0	1	842	34	8 U		0.3	0.0	2936	9 0	000		175										
	18	9	08	5 000	) U	_	842		797		03						175										
				TD 001			844	34			03	0.0	2939	2 0	) ū 2 9		177										
	18	9	03				844		805		03		3013				177										
				TD 002			844		0.8		03		2943		059		179										
		_		TD 003			844		80 803		03	00	12947	3 (	) Ū 8 8		180										
	18	Q	OB	-			844 817	-	สบ.ร 79		509	0.0	2899	/ C	147		176										
	18	0	- 0B				817		790		09	00	2015	7 (	,		176										
	10	-		ID 00:			802		80		13	0.0	2865	1 (	219		175										
	18	Q	- 08				800		804		14	•					176										
				TD 010			802		83		16	0.0	2850	6 0	290	15	180	)									
	18	9	ОВ				802	34	835	25	16					15	181										
				TD 012			677	34	60	25	28	0.0	2738	9 (	360	15	144										
			S	TU 015	5 Ü	1	531	34	36	25	43	0.0	601	0 0	)427		100										
	18	9	08	s 015	50	1	531	34	361	2 5	43						100										
			5	TD 020	ΟÚ		270	34	U2		572	0.0	2335	7 0	)55C		019										
	18	Q	08				270		024		72						019										
				TD 025			103		05		5115		2023		055		970										
				TD 030			961		05		30	0.0	11794	4 (	755		926										
	18	9	08	-			953	-	052		31						924										
				TD 040	-	-	752		00		58	0.0	1529	U (	0.551		863										
	19	9	08	-			748		995		558	0.5					862										
			-	TD 050			637		05		578		1347		1065		835										
				1D 060			545		12		595		1107		1191		815										
				TD 070	-		472	-	20		709	0.0	1048	8 .	1303		803										
	13	Q	08				447		242		716	0.0	00923	, .	1402		801 800										
				TD 080			421		30		723	U	10723	۷ .	1+02		1800 1802										
	18	ò	08	S T08	ρŢ	i)	399	34	357	2	730					14	+502	-									

ID. NO.	SHIP	LATITU	DE LO	POLITION 17/10	M A R 50U	ARE		NON T		YEAR	CRUIS NO.		ATOR" TATIO	N		TO TO TO	MAX DEPTH OF S'MPL"		WAVE SERVATI	IONS	Ţ	/EA+ HER ODE	CLOUD CODES			NODC STATION NUMBER
1209	RT	2949	8N 13	3955oW	086	99	03	05	186 1	968	N1	4 01	6		4	206	14	26			2	x 2	6 8			0016
						WA.	TER	V	VIND	BARC	. L	AIR TE	MP. °C			NO.	(96)	CIAL	]	,		_	0			0010
						COLOR	TRANS (m)	DIR.	SPEED OR FORGE	METE (mbs		DRY BULB	W E1	co	D.E.	OBS.		ATIONS								
								21	504	26	4	189	14	4 8		10										
	MESSENGR TIME C	CAST NO.	CARD TYPE	DEPTH IMI	т	ъ.	s	٠,,	SIGM	A - T		MALY-XI	ME 0 <sup>2</sup>	≨ Δ DYN. x 10	D M, 3	VELO 201		O <sub>2</sub> ml	PO4		TOTA		NO2=N µg = at/l	NO3-N µg = a1	\$1 O4=\$	рН
					1				1														-			+
	,		STD	0000	1	849	34	87	250	7	00	2899	1	000	0	15	178									
	186		035	0000	1	849	34	872	250	7						15	178									
	136	>	065	0009		852	34	70 ع	250	6						15	180									
			510	0010		852	34		250			2911		00 Z			18û									
			STD	0020		852	34		250		0.0	2910	3	0 ü 5	8		182									
	186	>	065	0028		852		678	250								183									
			STD	0030		852	34		250		0.0	2912	0	J U 8	7		183									
	186	,	035	3047		851		877	250				_				186									
	101		STD	0050		851	34		250		0.0	2917	5	014	6		186									
	18€	`	0 a S	0072		853		679	250				_				191									
	104		STD	0075		848	34		250		0.0	2923	3	0 < 1	9		189									
	18€		OBS	0095		805		816	251			3	2				180									
			510	0100 0125		786 690	34		251			2850		029			175									
	186		012 080	0145		612	34	62 499	252 253		00	2753	1	036	ı l		148 126									
	100		510	0150		592	34		253		0.0	2660	-	042	۵.	15										
	186		085	10196		404		202	255		00	2000	2	072	0		365									
	100		STD	0200		381	34		256		00	2430		055	. 6		058									
			STD	0250		132	34		260			2038		066			980									
	186		OBS	2287		99U		50	262								935									
			STD	0300		959	34		262		0.0	1798	5	276	3		946									
	186	)	OBS	10378		795		Ú00	265								876									
			SID	0400		758	34		265		00	1530	3	093	0		865									
			STD	0500		614	34		268			1316		107			826									
	186	1	085	T0560		548		085	269			_ • •		- '			810									
			STD	0600		523	34		269		00	1160	1	119	6		807									
			SID	0700	0	465	34	21	271	1	00	1032	9	130	6		800									
	18€		085	0741	0	444	34	249	271	6						14	799									
	186	,	065	T1405	0	275	34	553	275	7						148	842									

SHIP	LATITU	DE I	LONGITUDE	DRIFT	SQU SQU	DEN ARE		TION TI	IWE	YEAR	CRU	ORIGIN	ATOR'	N	DEPTH TO	DEPTI		WAVE SERVATIO	INS	WEA-	CODE?		2.	NODC
CODE	•	1, 10	1.00	0   2	10"	11	MO	DAY H	R,1/10		N		NUMB		NOTTO	S'MPL	'S DIP	HGT PER	SEA	CODE	TYPE AM	t	И	UMBER
RI	3003	N	1394151	N	122	U9	03	υ <b>ο</b> .	193	1968	вЫ	14 01	7	4	 +755	19	31	3 4		x1	6 7			0017
1		- 1				WA			VIND	BAF		AIR TE		T	NO.	T .	-	, , ,	•					001
							TRANS	DIR.	SPEED	MET	TER	DRY	w.E		ORS. DEPTHS	OBEFO	ECIAL VATIONS							
						CODE	lm1	-	FORCE	lmt	bs)	BULB	BUL	8	UEFINS	ļ								
								26	518	2.	20 ]	194	16	1 8	14									
u ESSENGE	CAST	CARD			Ι.	*c	Ι.	• /			SPEC	IFIC VOLU	ME	≨ ∆ D DYN. M.	so	UND	0 2 ml/1	, PO4-	-Р г	01AL-P	NO2-N	NO3-N	\$104-\$1	
TIME 48 1/10	및 NO.	TYPE	DEPTH	(m)	1 '		,	٠/	SIGN	1A-I	AN	OMALY-XI	0'	x 10 <sup>3</sup>	VEL	OCITY	02 4117	µg - 0		PD = 01/1	µg - at l	ug - at l	yg = al/i	PH
17 . 10					_		-		_		+		$\neg$		+			1						
		ST	00	n n	1	834	34	81	25	16	1 0	02909	, I	0000	15	172		Į.	- 1				1	
19	3	CBS	000			834		809	25		•	02.00	_	000		172								
1 1	,	510				836		81	25		0.0	02916	8	0029		175								
19	3	385	00			837		812	25		~	/-0	,	/		176								
4 .		STU				837		øl	25		Q	02920	8	0058		177								
		STI				836		81	25			02922		88.00		178								
19	3	ORS	CU			834		811	25							179								
		5 <b>T</b> I				830		81	25		0	02915	7	0146		180								
19	3	065	ijU.	51	1	823	34	803	25	8.0					15	179								
		ST	0.0	75	1	811	34	0.8	25	11	0	02887	0	0218	15	178								
19	3	035	00	43	1	781	34	794	2.5	1.8					15	172								
		ST	0.1	0.0	1	766	34	76	25	19	0	02818	2	0290	15	168								
19	3	085	C 1.	22	1	700	3.4	645	2.5	26					15	151								
		STI	D 01	25	1	661	34	ьl	25.	28	0	02740	6	J159	15	146								
		ST	0.1	5 U	1	532	34	34	25	41	0	02618	4	0426	15	100								
19	3	085	01	85	1	352	34	101	2 ←							045								
		ST				263		Ū6	25		0	02296	0	0549		017								
19	3	UBS	195			067		978	26							955								
		ST				052		198	26			01987		0656		+951								
	_	STI				934		99	26		0	01795	1	0751		+916								
19	3	085	6.5			790		001	26		_	<b>.</b>		0014		873								
		51				741		00	26			01512		0916		1859								
10	2	\$11				601		00	26		U	01334	2	1058		<b>820</b>								
19	2	CBS	T 05			60U 523		.003 .13	26 26		0	01152	7	1183		+820 +807								
		STI														799								
19	2	STI OBS	D 07 107			460 433		24 291	27 27		Ų	01004	1	1201		797								
1 7	_	STI				418		33	27		0	00897	4	86 د 1		· 799								
		5 T				388		39	27			00826		1472		1804								
		STI				361		45	27			00758		1551		810								
19	٦	085				359		453	27		Ų	00,00		1		811								
. ,	-	STI	-			334		49	27		Ω	00711	0	1625		818								
		ST				318		52	27			00671		1094		826								
19	3	OBS				304		544	27				_	~ - , -		+832								
- 1	-	51				298		55	27		Ω	00634	9	1759		835								
		STI				281		56	27		-	00612		1822		1844								
		ST				265		57	27			00591		1882		854								
		ST				232		16 Ü	27		0	00544	7	2024	14	1883								
19	3	OBS	T19	05		217	34	616	2.7	6.7					14	903								

RENCE ID.	SHIP	LATITU	DE	LON	GITUDE	DRSFT	MARS		STAT	ION TI GMTI	ME	YE A R	CRU		TATIO	N	1	TO C	MAX. DEPTH OF	085	WAVE ERVATIO	NS	WEA-	CLOUB		5	NODC
NO.	0001	•	1/10		1/10	- <u>+</u> -	10*	1.	MO I	AY H	1,1/10		N	0, 1	4 U M B	R	В	S	MPL'S	DIR	HGT PER	SEA	CODE	TYPE AM	1	N	UMBER
1209	RT	2957	N	13	944 W		086	99	03	J7 1	85	1968	8 N.	14 01	8		4	4700	15	30	4 4		X 1	3 6			001
	. ,		,				ſ	WAT	ER	w	IND	BAR	n. T	AIR TE	MP. *C		ή.	NO.								,	
								COLOR	TRANS.	DIR.	SPEED OR FORCE	MET	£R	DRY BULB	W E BUL		Del	0.05	SPEC BSERVA	TIONS							
							1			29	\$12	20	00	200	17	8 7		14									
	MESSENGR TIME O	CAST NO.	CAR TYP	D E	DEPTH (	m)	ī	°c	s	•/	SIGA	MA-T	SPEC	IFIC VOLU	M.E.	₹ △ DYN. X 10	D M.	SOUN		02 ml/l	PO4-		101AL=P µg - ut/l	NO2-N µg - 01/l	NO3-N yg - a1'l	\$1 O4-\$1 29 - at 1	рН
	17 17 10	+							-				1					<del> </del>			+	+					
	l		S	TD	000	ο '	1	846	34	84	25	06	00	2912	3 '	000	0	151	76			- 1			1	1	
	185	5	08		000			846		844	25							151									
	185		08	5	000	8	1	848	34	850	25							151									
				TD	001		1	847	34	85	25		00	02914	6	0 U 2	9	151									
				TD	002		1	844	34	85	25	0.7		2910		005		151									
			5	TΟ	003	O	1	841	34	85	25	0.7	0.0	2906	8	008	7	151	80								
	185	5	03:	S	003	1	1	841	34	b50	25	07						151	80								
	185	5	0 B	S	004	9	1	839	34	840	25	07						151	82								
			S	TD	005		1	838	34			0.7		02912		0 1 4		151	82								
				T D	007			813	34		25		0 (	02849	6	021	8	151									
	185		QB:		007			812		858	25							151									
	185	5	08:		009			805		358	2.5							151									
				TD	010			791	34		25			02825		028		151									
	100		_	TD	012			632	34		25		0.0	02682	2	035	7	151									
	185	,	03	-	014			516		343	25			0.35.0		0	-	150									
	189		03:	T D	015 T019			498 303	34	31 071	25	46 69	0 (	02568	6	042	. 3	150									
	10:	,		o TD	020			288	34			72 72	0.0	02335	5	054		150 150									
				TD.	025			115	34			04		02031		065	-	149									
	185	5	25		029			974		J 65	26		0.	02001	,	00)	-	149									
	10,	,		T D	030			066	3.4			30	0.0	01795	2	075	n	149									
	185	5	0B		T 0.39			757		000		57		01.,,	-	• • •	•	148									
				TD.	240			743	34			60	0.0	01513	9	091	6	148									
				TD	050			604	34		26			01309		105		148									
	185	5	ОВ	5	059	U	Ū	514	34	076	26							148									
			S	τD	050	O	0	509	34	J 9	26	97	00	01165	1	118	1	148	00								
			S	τD	070	0	0	466	34	20	27	10	0.0	01041	5	129	1	148	01								
	185	5	08	S	079		0	431	34	290	27							148	Ü2								
			-	T D	080			428	24	-		22	_	00931		139	0	148	03								
				(1	090			396	34			31	0.0	00650	5	147	9	148									
	185	5	0 B		T099			369		429		39						148									
				T D	100			367	34			39		00779		156	0	148									
				T D	110			340	34	-	27			06735		163		148									
				T D	120			317	34		27			00696		170		148									
				TD	130			296	34			52		00659		177		148									
				TD TD	140			277	34			56		00623		184	-	148									
	185		OB:	T [i]	150 T151			262 260	34	568		59 60	01	00591	. 2	190	U	148 148									

C€	SHIP					± 5		SDEN	STAT	ION TIN		E A D		ORIGINA	_		DEPTH	DEF	H DR	WAVE SERVATIONS	WE				NDDC
D.	CODE	LATITUI		LON	GITUDE	NDCT		JARE				EAR	CRUIS NO.		OITATIC UMB		вотто	0.5		HGT PER S	200		1	1 1	UMBER
10.	++		1/10		1/10	-	10*	1.		DAY HR.			_	+				_	-	1 1 1			_		0010
209	RI	2952	N	13	940 W		186	_			_	968	N1				365	3 18	3 3 3	4 4	X	.   8   7	1		0019
								WA	TER	WI	ND	BARG		AIR TEA	_	- 1	NO.	5.8	ECIAL						
								COLOR	TRANS		SPEED OR	MET!		BU F 8	BUL	T COD	DEPTH	S DBSER	VATIONS	l I					
									-	+	FORCE						+	+							
								J	Ļ.	33	S13	22	٩L	211	19	4 8	14			1			T	-	_
	MESSENGR	CAST	CA	RD R	DEPTH (	_ \		r *c		•4.	SIGMA	N _ T		ic votu		∑ ∆ D DYN. M		DUND	02 ml/	PD4-P	TOTAL-		ND3-N		pН
	TIME 6	T NO.	TY	PE	UEFIR II	m 1			1	••	210 ///		ANO	W W LY -XI	"	x 10 <sup>3</sup>	. \ ^6	FOCITA		yg = #1/1	νg - ota	I ug = at/l	اداه - ور	yg - al.″	
	1110	1								~					T										
	J	1	5	TD	0000	0		1852	34	86	250	5	00	2914	9 '	0000	) l	5178	,	1					
	187	7	OB		0001			1852		860	250						1	5178							
				GTO	001	Û		1854	34	86	250	5	00	2922	3	0029	1	5180							
	18	7	0.6		001			1855	34	862	250	5					1	5181							
				STD	002			1855	34	86	250	5	00	2925	2	0058	1	5182							
				TD	003	Ü		1854	34	87	250	5	0.0	2924	7	0088	3 1	5184							
	18	7	ΟE		003	7		1854	34	871	250	6					1	5185							
				TD	005	U		1854	34	58	250	6	00	2922	0	0146	) 1	5187							
	18	?	QÉ	3.5	005	9		1854	34	884	250	7						5189							
			<	STD	007	5		1832	34	67	251	1	0.0	2885	2	021		5185							
	18	7	ΟE	35	003	U		1804	34	834	251	5						5179							
			9	STD	010	0		1784		80	251		0.0	2831	1	0290		5174							
	18	7	O E	35	011	6		1737	34	727	252							5162							
				STD	012			1684		62	252			2740		0360		5147							
				STD	015			1539		38	254		0.0	2604	2	042		5103							
	18	7	0.8	_	017			1403		190	255				_			5061							
				STD	020			1246		106	257		00	2264	U	054		5011							
	18	7	O E		T023			1098		3959	259		0.0		,	0+61		4963 4951							
				STD	025			1052		398	260			1987		065		4931							
				STD	030			0943		01	262		0.0	1794	В	074		4893							
	18	7		35	034			0852		1023	264		0.0	1510		091		4858							
		_		STD	040			0739		+∪0 3996	266 267		UU	1510	4	0.41		4830							
	18	/	03		T045			0644		+Ú4	268		0.0	1305	6	105		4820							
				STD	050			0600 0512		113	269			1139		117		4802							
	1.0	-		STD BS	T068			0458		1204	271		00	11177	1	11,		4794							
	18	/		STD.	070			0452		+22	271		0.0	1009	Q	128		4795							
				5 T D	080			0421		30	272			0923		138		4800							
				STD	090			0391		+37	273			0844		147		4805							
	18	7		BS	091			0387	_	383	273			,	_			4806							
	10	1		SID	100			0365		443	273		0.0	00778	1	155		4811							
				STD	110			0340		449	274			0712		162		4818							
	19	7		BS	T115			0328		4508	274	_				_		4822							
				STD	120			0317		452	275		0.0	0674	0	169	5 1	4826							
				STD	130			0297		453	275			00647		176		4834							
				STD	140			0278	34	454	275	56	00	0620	0	182	4	4843							
				STD	150			0262	34	456	275	9	0.0	0596	7	188	5 i	4853							
				STD	175	О		0231	34	459	276	54	0.0	0547	2	202	8 ]	4882							
	18	7		BS	1176	8		0229	34	4596	276	55					]	4884							

TABLE XI. Observed and interpolated oceanographic data for stations taken by USCGC PONT-CHARTRAIN at Ocean Station NOVEMBER, 10-31 March 1968, prepared from NODC Listing No. 31-1249 PW.

EFERENCE	SHIP	LATITU	DE	LONGIT	UDE	DCTR	MARS		STAT	ION T	ME	YEAR	CRU	ORIGIN	STATIO	N		TO DITOM	MAX. DEPTH OF		_	VE CTIONS		WEA- THER CODE	CLOUI	5	51	NODC LATION UMBER
TRY ID.	CODE		1/10	•	11/10	3 <u>2</u>	10	1.	мо	DAY	R,1/10		N	0.	NU M 8		+	-	S"MPL"S		HGT	_	_		1 - 1 -			000
31124	9 PW	2959	N	1395	5 w		086	99	03	10	209	196	3 N.				4	114	15	15	, 1	ļ	2	x 1	6 3			000
		'					[	WAT	ER		VIND	8A		AIR TE	_	- VI	5	NO. 085.	SPEC									
								COLOR	TRANS	DIR.	SPEED	1		BULB	BUL			EPTHS	OBSERV	ATIONS								
							1			13			61	194	16	1 7		14			<u>L</u>		_					
	MESSEN TIME HR 1	GR CAST	C A R TYP		DEPTH L	m)	ī	*c	s	٠/٠.	SIG	MA-T		IFIC VOL			M	SOU		0 2 ml/		O4-P		TA L-P	NO2-N ug - 01/			рН
							1	05.0	3.6	9.0	26	501	!	0295	30	000	n	15	177		1		1		1	1		
				T D	0000			850		80 801		501	0	02/).	0	000			177									
	0 (	) 9	003		0000			850 840		.80 100		504	a	02934	4 H	002	9		176									
			-	TD	001		_	840		798		504		0 2 / 3					176									
	0.0	9 9	05		001			833	-	80		505	0	0292.	2.2	005	9	15	175									
		0.0	08:	TD	002			827		795	_	507						15	175									
	U	0 9		5 10	003		_	826	_	79		507	0	0291	41	0 ú 9	3.8	15	175									
	3	0 9	0B.		004		_	819		786		508						15	176									
	3	Uq		10	305			614	_	79		505	0	0290	71	014	+5		176									
	7	09	08		007			819	34	787	2	505							180									
		0 4		T D	007		1	814	34	78	2	509	0	0290	79	0 < 1	19		179									
	۵	0.9	ОВ		009		1	768	34	727	2	51t							168									
				TD.	010	0	1	754	34	¥70	2	517		0283		029			164									
			5	TD	012	5	1	1654	34	+52		527	0	0274	56	036	5 J		136									
	0	U 9	QВ	S	014	7	_	548		+367		540	_						105									
			S	TD	015	0		1527	-	+3+		542	C	0260	18	042	2 /		099									
	0	J q	ОВ	15	T019			1240	_	4046		579		0775	10	054	/. O		009									
			_	TD	020			1234	_	+05		580		10225 10199		054			966									
			_	TD	025			1093	_	406		800		10199	70	00.			934									
	Ü	09	QВ	-	029			3984		407	_	627 629		0180	0.0	07	50		932									
			_	STD.	030			974		407 401		651		/0100	0 -	0 .	,,,		883									
	0	09	08		039			0806	_	401		654		0157	40	09	19		878									
			-	STD	040			0790 0622		401 403		678		0134		10			829									
				10	050 T058			J524 J519		403 403		691		,,,,,,			-		801									
	Ú	109	QE		060			0515	_	405 405		693	(	00120	21	11	92	14	802									
				STD STD	070			0475		418		708		0010		13	ůб	14	48∪4									
		09	O E		078			0445	_	425		717						14	+8U5									
	-	109		5 T D	080			0438		428		720	(	00095	586	14	0.7	14	+807									
					090			0402		435		2729		00081	725	14	98	14	¥8C9									
			OE	STD	T09			0376		438		2735							4812									
		) () q ) () q		въ В S		55Q		0272		455		2757																

FERENCI V ID.	SH		LATITU		LO	GITUDE E	M A R SOU	APE	-	ION T		YEAR	CRUISE	5	ATOR'S		DEPTH TO	DI	AAX. EPTH OF	0	BSERV	A VE / A TIC	ins.	W E.	R	CLOUD			NODC
+	+	+		1/10			10*	1.	MO I	DAY	18,1/10		NO.	,	Y U M BER		BOTTON	N 5°2	VPL'S	DIV.	нС	T PER	SEA	COL	DE -	TYPE A 44	1	_	NUMBER
1 1 2 4	19 PI	₩ .	3005	N	13	952 W	122			10	197	1968	N15	00	2		4846	.	14	1	7		3	X	1	6 4			0002
								WAI		-	WIND	BARC	5-	AIR TE/	MP C	vis.	NO.		SPEC		٦`			,			,		0002
								CODE	TRANS.	DIR.	SPEED OR FORC	741616		DRY ULB	W E T BULB	COD	DEPTHS	085	SERVA		5								
										18	518	23	4 2	28	206	7	14												
	MESSI TIA	사트 약	CAST NO.	CAR TYP		DEPTH Imi	1	°c	s	٠/	SIG	MA-T	SPECIFIC	VOLU ALY-XI	. E	ΔD γΝ. Μ x 10 <sup>3</sup>	1. 1	OCIT		O 2 m1		PO 4~		01AL-		NO2-N ug - al/1	NO3-N pg - of I	\$1 O4-	
		ļ		SI		0000	١,	0.2.	2.4																-				
		197		089		0000		834 834	341	830 830		80	002	893	9 0	10 C		17											
		197		QBS		0008		831		831		08						17											
	•	/		S1		0010		830	348			0.9	002	887	1 0	029		17											
				51		0020		828	348			09		865		058		17											
	]	197		083		0027		827		331		09	002	505	, ,	000		17											
				51		0030		827	348			10	002	8.85	a r	087		17											
	]	197		OB5		0043		827		338		10	002	005	7	001		17											
				S1	D	0050		825	348			10	002	885	7 0	144		17											
	]	197		OBS	5	0067	1	821	346	330	25							18											
				SI	D	0075	1	803	348	31	25		002	850	2 0	216		176											
	1	197		089		0085	1	773	34	779	25	19						16											
				ST		0100		689	346	54	25	28	002	729	0 0	286		14											
				ST		0125		577	344	¥ 7	25	41	002	612	9 0	353	15	11.	2										
	1	197		OBS		0127		569	344	+59	25	42					15	110	Ü										
				ST		0150		516	344		25		002	540	8 0	417	15	0.96	6										
	1	197		OBS		10169		458	343		25						15	080	0										
				51		0200		283	342		25		002			>36	15	028	6										
	,	197		ST		0250		272	340	_	26		002	001	5 0	642	14	950	8										
	1	197		OBS		0251		069	340		26		_			_		95											
	1	197		5T 085		0300 10329		975	340	_	26		001	817.	0 ق	737		93,											
	1	191		SI		0400		722	340	-	26					_		91.											
	1	197		OBS		0491		785 549	340		26		001	5 3 0 4	4 0	905		87											
	•	. , ,		ST		0500			340	-	26		001					839											
				ST		0600		541 557	340		26		001		_	048	_	83											
	,	197		085		0668		509	34]		26		001	158.	_ 1	174		82											
	1	- / !		ST		0700		490	342		27 27		001	164.		200		813											
				ST		0800		+38	342		27.		000		_	287		811											
	1	197		OBS		T0858		11	343		27		000	4 D U !	5 I	387		807 004											
	-			51		0900		393	343		27		000	554	5 1	477		806 896											
				ST	D	1000		350	344		27.		000			55a		807											
				ST		1100		328	344		27		000		_	634													
				ST	D	1200		307	344		27		000		_	764		821 821											
				ST	D	1300	0.2	94	345	2	27		000			771	148												
	1	197		085		T1357		290	345		27				. 1			840											

FERENC	F		-		T	e MA	PSDEN	IT MOITATE	ME		OR	IGINA	TOR*S		DEPTH	MAX. DEPTH	085	WAVE ERVATION	s	WEA-	CLOUD		ST	NODG ATION
v 10	- SHIP	_   LATE	JDE	LONG	STUDE	SO 20	UARE	(GMT)		YEAR	CRUISE NO.		ATION JMBEP	- 1	TO BOTTOM	0.5		HGT PEP		CODE	TYPE AM		N.	U N, BEb
E NO			1.110		1/10	10"	1.	MO DAY H			1			-		_			3	4.1	5 6			0003
112	49 PW	300	27N	139	524W1	12				1968		003			4755	18	29		21	, 1	516	r		000-
							WAT		SPEED	BARG	O		WET	CODE	NO.	OBSERV								
							COLOR	TRANS. DIR.	FORCE	1 1 1			BULB	CODE	DEPTHS	OBSERV	A HOIVS							
								29	520	18	6 18	9	172	7	14									
						T		127	1320	1 20					100	UND		PO4~P	10	TALOP	NO2+N	1403-14	SI O4-Si	рН
	MESSE TIA HR 1	NGR CAST	CAI		DEPTH (m	1)	T *C	s ·	SIGA	VA-T	SPECIFIC	VOLUA LYX10	,; D	Δ D yn. M x 10 <sup>3</sup>		OCITY	02 m1/1	μg = 01/		g = al	µg ≈ al/1	µg = 01'	yg = of '1	
											1		. 1		1.0								1	
	,		S	TD	0000		1837	3484		0.8	0028	393	1 (	000		174								
		179	08		0000		1837	34841		0.8	0028	06	5 (	0 2 9		5175								
				TD	0010		1836	3484 34840		08	0020	כ די נ	) (	,024		176								
		179	08	_	0014		1836 1836	3484		0.5	0028	3 <del>3</del> 8	1 (	058		5177								
				TD.	0020		1834	3484		8.0	0028			037		178								
		179	08	TD	003		1832	34835		0.9						5178								
		179		TD	005		1826	3483		00	0021	394	t. (	145	1.5	5174								
		179	0 5		005		1820	34820	25	1 Ü						5178								
		117		GTO	007		1803	3482	2.5	15	002	849	6 (	0217		5176								
		179	03		009	J	1786	34826	25	19						5173								
				STO	010	0	1728	3472		25	002	759	6 1	324 i		5157								
		179	0.8	3.5	011	5	1629	3455∪		35	0.00		¬	3 4 6 7		5128 5120								
			5	ST)	012		1600	3451		39	002			)⊅54 U415		5185								
				510	015		1492	3438		55.	002	504	-	0.41:		5050								
		179	0.6	_	017		1365	34250		57. 584	002	172	5	0539		5005								
				510	020		1225	341 <i>3</i> 34010	_	510	002	1.,				4951								
		179	Of		T023		1030	34010		515	001	9.16	. 3	0636	5 1	4943								
				510	030		0942	3402	_	530	001			073	1 1	4914								
		179		STD BS	035		0857	34028		645					1	4890								
		179		STD	040		0779	3404		657	001	538	6	089	7 1	4874								
		179		B 5	1045		0696	34062	21	ь71						4852								
		114		STD	050		0651	3409	2	679	001	339	2	104		4841								
				STD	060		0554	3415		696	001			116		4819								
				STD	070	Ü	0479			709	001	052	2.9	127	-	4806								
		179	0	BS	1070		0475	34210		710	0.00	020	3.0	137		4805 4805								
				STD	080		0435		_	721	000			146		4805								
				STD	090		0398			732 735	000	04,	,,,	1.0		4809								
		179	-	85	093		0386			739	000	78	3.0	154		4813								
				STD	100		0347		_	744	000			162		4821								
		170		STD BS	110 T117		0330		_	747			-			4826								
		179		STD	120		0324		_	748	000	09	47	169	6 1	4820								
				STD	130		0303			752	001	06	36	176	4 1	.4836								
				STD	140		0284			755		53		182		4845								
				STD	150		0266			750	364	000	5 ū	184		L4855								
				STD	175		0228		2	765	600	554	ΟC	253		4851								
		179		BS	T180		0221		9 2	766					1	14888								

EFERENCE TRY ID.	SHIP	LATITU	DE	LONGITUDE	DRIFT	MAR	SDEN	STATION 1		YEAR	CRUISE		ATOR'S		DEPT	H DE	PTH OF	085	WAV ERVA1	IONS	WEA			5	NODC TATION
DE NO.	CODE	•	1/10	171	0 C Z	10*	1-	MO DAY	4R.1/10		NO.		NUMBE		BOTTO		APL'S	DIR.	HGTP	ER SEA	CODE	TYPE A M	T	N	UMBER
1124	9 PW	3000	N :	1395451		122	09	03 13	186	1968	N15	00	<b>→</b>		438	9	14	32		-	x1	61,			000
							WAI	ER	WIND	BAR	0- A	IR TE	MP. °C	- vis	NO.		SPECI	A .							
							COLOR	TRANS, DIR.	SPEED OR FORCE	MET (mb		RY JLB	BUL	COD	DEPT	0.00	SERVA								
								33	515	24	0 1	61	13	3 7	14										
	MESSENGA TIME HR 1/10	01 NO.	CARD	DEPTH	(m )	T	*c	s *4.	SIGA	4 A - T	SPECIFIC ANDMA		W.E 0.7	≨ △ D DYN. № x 10 <sup>3</sup>	·. ,	SOUND ELOCIT		) 2 ml/1		4-P	TOTA L—P pg + ot/l	NO2=N µg = ot	NO3=N yg - at/1	\$1 04-\$1 49 - at 1	p⊢
						1											!							1	
			ST				olo	3481	25		002	863	1	0000		516									
	186		085	000			816	34814								516									
	186	5	085	001			813	34819								516									
			STI				813	3482		1 <	002			0050		.516									
			ST				812	3482		14	0.0.2	857	6	0057		.516									
	186	5	085				811	34815								.517									
			STI				811	3482		1 4	007	851	U	0036		.517									
	18	5	085	00			812	34815								517									
			STI				813	3482		12	005	870	7	014		517									
	18	6	OBS	0.0	70	1	815	34815								1517									
			ST	0.0	75	]	810	3481	25	1.	002	876	7	0-15	- 1	517	d.								
	18	6	082	0.0			776	34791		19						517									
			STI				.743	3474		23	002			0586		516									
			STI				630	3455		35	002	670	15	0354		51.									
	18	6	OBS				556	34444								510									
		_	511				522	3439		47	002	560	В	0419		.509									
	18	6	085				355	34181		67						504									
			ST				315	3416		7.3	002			0541		503									
			ST				110	3406		0.3	002	044	.5	0550		497									
	18	6	085	0.2			011	34026		19						494									
			STI				981	3403		2.5	001	841	.8	0748		493									
	18	6	OBS	T 0 3			1839	34033		48						489									
			STi				806	3404		5.3	001			0919		488									
			ST				672	3409		76	001	364	. 9	1066		485									
	18	6	OBS				1593	34123		89						483									
			ST				1562	3414		94	001			1194		482									
			ST				476	3421		10	001	046	2	1008		485									
	18	6	OBS				1439	34252		1.7			_			480									
			ST				426	3429		22	000			1405		480									
			ST				1396	3437		31	000	850	6	1494		480									
	18	6	OBS				382	34411		36						481									
			ST				369	3443		38	000			1576		481									
			ST				1344	3446		43	000			165		482									
			ST				322	3449		48	000			172		1482									
			ST	D 13	ΟÜ	Ç	13∪2	3452	27	53	000	656	5	1792	2 ]	1483	6								
			ST	D 14	υÜ	(	284	3456	27	57	000	618	3.1	1856	5 ]	484	5								
	18	6	085	T14	31	(	279	34566	27	58					]	484	9								

ENCE	SHIP	LATITU	n.	101	NGITUDE NO	MAR	SDEN		ON TIN	1E YEAR		ORIGIN		_	DEPT	Ocr	TH OR	WAVE SERVATIONS		WEA-	CLOUD			NODC
NO.	CODE	•	1/10		1/10	10*	7-7		AY HR				ITATI MUM		BOTTO		F	HGT PER		ODE	TYPE A M	-	N	UMBER
	2	2001		1.7		+	100				-		_					HOLDER :						
1249	PW	3001	N	13	954 W	122		- 4-		17 196	BIN	15 00			429	7 1	5 31		3	X 2	6 7			0005
							WAI		W	SPEED BA		AIR TE		VIS	NO.	)	PECIAL							
							COLOR	TRANS.	DIR.	OR IME		DRY BULB	8 U		DEPT	OBSE	RVATIONS							
							-		29		13	161	1	56 7	14									
					T			ļ .	4	317   2	1	101	4		4				7	- 1				
	MESSENGR TIME of	CAST	CAF		DEPTH (m)	Т.	*C	s	٠/.,	SIGMA-T		CIFIC VOLU		₹ A D		QNUO	0 2 ml/	PO4~P		A L - P	NO2-N	NO3-N	SI O4-5:	pН
	HR 1/10	I	, , , ,										•	x 103	,	ELOCITY		µg + a†/↓	ng.	01/1	νg - α1/1	µg − at/l	µg = 61 1	
			5	TD	0000	1	820	348	34	2512	0	02857	2	0000	) 1	5169	'							
	217	,	OB	S	0000	1	820	348	335	2512					1	5169								
			S	TD	0010	1	815	348	53	2513	0	02849	5	0029	9 1	5169								
	217		08	5	0010	1	815	348	334	2513					1	5169								
				TD	0020		814	348		2513	0	02850	4	0057	7 1	5170								
	217		ОВ		0029		813	348		2513					1	5171								
		_		TD	0030		813	348		2513	0	02852	1	0086		5172								
	217	,	08		0048		812	348		2513						5174								
				TD	0050		814	340		2513	0	02859	7	014:		5175								
	217	,	06		0072		816	348		2513						5179								
				TO	0075		813	348		2513	0	02867	8	0214		5177								
	217		08		0095		775	348		2521						5171								
				T D	0100		749	34		2523		02778		0235		5163								
	217			ΤD	0125		621	345		2538	0	02643	4	0353		5127								
	217		08		0144		525	344		2548		0.1510	,			5098								
	217		0B	TD	0150 T0195		491	343		2553	0	02510	1	0 + I 7		5088								
	211			5 TD	0200		275 261	34]		2577 2580	0	02260	0	0536		5021 5017								
				TD	0250		123	341		2606		02014		0536		4977								
	217		08		0289		023	341		2624		02014		004.		4948								
				TD	0300		994	3/41		2628	0	01611	R	0739		4939								
	217		0B:		T0386		801	340		2654				0.5		4880								
				T D	0400		782	340		2657	0	01543	o .	0901		4875								
				TD	0500		658	340		2678		01345		1051		4844								
	217		0В.		T0576		579	341		2692						4826								
				TD	0600		550	341		2696	0	01179	5	1177		4820								
				TD	0700	0	477	342	2.2	2711		01040		1288		4805								
	217		ОΒ	S	0765	Ü	438	342	264	2718						48Ul								
			S	TD	0800	Ü	427	343	30	2722	0	00930	3	1387	7 1	4802								
			S	TΟ	0900	0	396	343	3.8	2732	0	00843	2	1475	- 1	4807								
	217		0В.		T0958		380	344		2737						4811								
				ΤO	1000		369	344		2739	_	00779	-	1557		4813								
				TD	110û		343	344		2744		00733		1632		4814								
			_	TD	1200		321	345		2749		00692		1703		4827								
				TD	1300		301	345		2753		00653		1771		4836								
	21-			TD	1400		283	345		2757	0	00615	5	1834		4845								
	217		0B:	5	T1454	0	275	345	75	2759					1	4851								

TRY ID	SH CD		LATITU	- 1	LONGIT	UDE		ARSD SOUAR	E		5 M T)		YEAR	CPUIS	ORIGIN	TATIO		DEP TO BOTT		MAX. DEPTH OF	OBSE	WAVE RVATIO		WEA- THER CODE	CLOUD		\$ 5	NODC PATION UMBER
DDE NO	0.	-		1/10		1/10	-	10.	1. /	NO D	AY H	1,1/10		NO.	-	4U W BE			5,	'MPL'S	DIR.	HGT PER	t -	-	TYPE A M	1		
3112	49 P	W	2900	N	1400	0 W	0	87	90 (	03 1	5 1	.95	1968	N1				43t	9	15	26		2	X1	6 6	1	- 1	0006
									WAT	ER	W	IND	8ARC	)	AIR TE	MP. °C	VIS	NO		SPEC	IAL							
									DLOR	TRANS	DIR.	SPEED OR FORCE	METE		DRY BULB	W E T	cor	DEPT	HS 0	BSERVA								
								F		-	28	510	22		194	10	9 7	13	3		_							
	MESS TI	ENGP ME o	CAST	CARD		EPTH (n	n)	т .	c c	s	٠/	SIGN	A-I	SPECIF	IC VOLU	ME 07	_ L	Ž. ,	ZOUN		O <sub>2</sub> ml/l	PO 4-		OTAL-P pg - a1/1	NO2~N μg - σ1/l	NO3=N µg - a1/I	\$1 O4=\$1 pg = a1/1	рН
	HR	1/10					+			-		+				+	X 103	-				-	+		-	74	-	
		1		ST	D	0000	) (	19	o Ú	35)	16	250	o 1	00	2961	2	000	ວ່:	152	12		1	- 1		1	1	1	4
		195		OBS		0000		19		35		250							152									
		195		088		0008			57	35		250							152									
				ST		0010			57	35		25		00	2958	0	003		152									
				ST		0020			57	35		25			2961		005		152									
				ST		0030		19	57	35	6	25	01	00	2465	7	30 S		152									
		195		OBS		0030	)	19	57	35	156	25	01						152	16								
		195		OBS		0046			57	35.		25							152									
				ST		0050			58	35.		2.5		0.0	2974	0	014		152									
		195		0B.5		007			60	35		25							152									
				5 T		0079		19		35		25		00	296H	3	042		152									
		195		OBS		0091			68		)4C	2.5							152									
				ST		0100			36	34		25			2823		0 4 9		151									
				ST		0125			24	34		25		30	2700	4	036		151									
		195		085		0139			65		707	25			35.00		32		151									
		100		ST		0150			22 85	340	448	25		00	2594	4	043		151 150									
		195		OBS ST		0185			19	34		25		0.0	2361	0	055		15a									
				ST		0250			19	34.		25			2101		055		150									
		195		085		0279			16		150	26		00	2101	۵.	000		149									
		190		51		0300			75	34		26		0.0	1919	1.6	ū76		149									
				ST		040			94	341		26			1675		0 74		149									
				51		0500			39	34		26			1492		110		148									
		195		085		057			38		308	26							148									
		1,,		51		0600			10	341		26		0.0	1331	4	124		148									
				ST		0700			07	34		27			1106		136		148									
		195	5	OBS		078			44		268	27							148									
				ST		080			36	34.		27		00	0948	34	147		148									
				ST		0900			99	34		2.7			0854		156		148									
		195	;	085		0991			69		436	27		-					148									
				ST		1000		03	66	34		2.7		0.0	u773	3.3	164	2	148	12								
				ST		110			37	34	46	27		00	0728	36	171	7	148	17								
				51		120	Э	03	12	34	49	27	49	0.0	0688	39	178	8	148	23								
				ST	D.	130	Ü		92	34		27			Ū654		185		148									
				ST		140			76	34		27			0624		191		148									
				51		150			65	34		27		0.0	0599	4	198		148									
		195	,	OBS	, 1	1152	8	0.2	62	34	566	27	59						148	58								

REFERE		SHIP	LATITU	DE	LON	GITUDE	DCTR	MAR	SDEN	ATZ	TION T	AA E	YEAR	CPI	ORIGIN	ATOR			10	MAX. DEPTH OF	01	W A B S E R V	VE A TION	s	WEA.	CLOU			NODE
	NO.	CODE		1/10		11/10	° ₹	10*	11"	MO	DAY H	R.1, 10				NUME		8	MOTTOR	S'MPL'S	Dik	HG	T PER :	SEA.	CODE	TYPE A	v T		NUMBER
	249	₽₩	2855	-	2.4	004 W		087	1	03		192	1968	N	15 00	7			+755	14	01			2 !	X1	5 :			0007
5 T I T	244	P #4	2000	P IN [	14	004 W		001	WA	-	-	IND		-	AIR TE		-	+		14	0 1	1		4	^ 1	1 2 5	) I		0007
									COLOR	TRAN		SPEEC	MET C		DRY	wi	i vi	DE	NO. OBS.	SPEC									
									CODE	imi	DIR.	FORC	41		8UL8	8 U		1	DEPTHS	Datek A.	4 110/4 2	,							
											0.3	515	2.8	3.8	178	1.	28 7		14										
	Γ											T	1	Τ,		1	< .		T	. 1		1		1		_	1		
	1	MESSENG TIME	CAST	C A TY	P.D.	DEPTH	(m.)	T	*C		*4.	51G	M A - T		CIFIC VOLL		DYN.	Μ.	VELOC		O 2 m3		PO 4 = P 19 1 31 1		TA L = P.	NO2=h ug = at/			рн
	1	HR 1/10	0					-		-		-		-		_	)	,	-					+		-	-77	-	+
					TD	000			901		16		00	0	02962	9	000	Ū	152										
		19	12	08		000			961		159		0.0						152										
					TD	001			.952		16		03	0	04946	3	003	0	152										
		19	2	08		001			952		156		03		30.7				152										
					TD	002			951		16		503	0	02947	i	005	9	152										
		19	12	QB		002			95U 1950		156		03 533		02948		008		152 152										
		19	1 2	06	GI	003 004			1950		157		5 . 3 5 . 3	U	C 2 7 4 8		000	. 0	152										
		17	′ ∠		TD	004			1952		16		003	n	02959	0	014	Ä.	152										
		19	1 2	0B		007			1953		5155		- 32	0	02101		0 1 4		152										
		1 7	- 2		TD	007			917		510		07	0	02923	4	022	1	152										
		19	2	08		009			795		915		524	_	02,00		0-2		151										
		1			TD	010			1754		83		527	Ω	02739	,	0.9	2	151										
					TD	012			1620		+58		40		02626		035		151										
		19	2	08		014			1544		4454		547	-		-			151										
		-			TD	015			1508		441		552	0	02516	6	042	3	150										
		19	7.2	06		T018			1361		+27u		572						150										
					TO	020			1320	34	425		579	0	02266	5	054	3	150										
				5	TO	025	0		1152	34	17	26	505	O	02022	6	065	ű	149	869									
		19	2	ОВ	5	028	1	]	1063	34	135	26	519						149	162									
				S	TD	030	0	1	1021	34	412	26	525	0	01842	2	074	7	149	49									
		19	9.2	06	5	T036	9		877		4060		544						149										
					CT	040			0812		406		554		01576		091		148										
					TD	050			040		404		576	0	01359	7.1	106	4	149										
		19	9.2	08		T056			)561		47123		586						148										
					TD	060			)534		+08		593		01203		119		148										
			_		TD	070			73		+20		705	0	01050	0.0	130	5	148										
		19	7.2	0.8		073			453		+238		715	_	000	. 7	160		148										
					TD	080			0432		+29		721		00943		140		148										
		1.0			TD	090			0400		437		731	J	00855	) 4	149	15	148										
		19	12	08		T093			390	-	4395		734		00795		157	, ,	148										
					TD	100			)371 )345		442 445		737 742		00749		105		148										
					TD	120			322		448		747		00706		172		148										
					TD	130			303		451		751		00706		179		148										
					TO	140			286		454		765		00631		186		148										
		19	2	08		T142			0283		4548		756			-	-		148										
		7.2	, ,	0.0	, 3	1142	ر.	,	-200	٠, ر	+ J + 0	_	, 20						147	-4 7									

FERENCE		_ =	MARSDEN	STATION TH	ME		ORIG1N	IATOR	<b>'</b> S	DEPTH	MAY		WAVE	WEA	CLOUD	T		NODC
Y ID. CODE LATIT		VGITUDE E	SOUAPE	(GMT)	YE A	CKU	115 E	STATIC	N	TO	DEPTH		ERVA TIONS	THER	CODES		5	TATION
NO.	1/10	1/10 =		MO DAY HE		N	0.	NUM8	SER	80110M	S'MPL'	DIR	HGT PER SE	A CODE	TYPE AM	1		Owers
11249 PW   290	0 N   14	300 W	-		12 196	58 N	15 00			4755	15	05		3 × 1	6 5	F		0008
			WAT			ARO-	A IR TE		VIS	NO. OBS.	SPE	CIAL						
			COLOR	TRANS. DIR.		mbsl	DRY BULB	8UT		DEPTHS	OBSERV	A TIDNS						
				06		315	189	1.6	33 7	14								
	<del>-</del>			1001	1			'т					T				1	
MESSENGR CAST	CARD	DEPTH (m)	1 °C	5 */**	SIGMA-1		DIFIC VOLU		₹ ∆ D DYN. M	SOL	DOLLTY	O 2 ml/1	PO a → P µg = 01/I	101A L-P		NO3-N vg • a1/1	\$1 O4=\$4 pg = 01 1	рН
HR 1/10			1			-			x 10 <sup>3</sup>		-			- Jy - 0171	by - oil	pg • 01-1	pg - 01 .	-
					1													
	STO	0000	1969	3518	2500	0 (	02969	7	0000		215							
212	OBS	0000	1969	35177	2500						215							
212	085	0009	1958	35178	2503				0.300		213							
	STO	0010	1958 1957	3518 3518	2503		02945		0030		213							
	STD	0020	1957	3518	2503		02947		0059		215							
212	STD OBS	0030	1956	35176	2503 2503	U	02949	, (	0089		216							
212	OBS	0049	1955	35176	2503						216							
212	510	0050	1955	3517	2503	0.	02955	. 7	0148		219							
212	OBS	0074	1957	35175	2503	•	02.73	, ,	0.40		224							
	STD	0075	1954	3517	2503	0	02963	10	0222		223							
212	OBS	0096	1880	35064	2514		02.0.		01122		204							
	STD	0100	1860	3503	2516	0	02844	44	0294		193							
	STD	0125	1736	3481	2530		02720		0364		164							
212	OBS	0144	1642	34668	2541						137							
	SID	0150	1610	3462	2545	0	02583	31	0430	15	128							
212	OBS	T0192	1407	34361	2570					15	068							
	STD	0200	1372	3434	2575	0	02302	8 2	0752	1.5	057							
	STD	0250	1178	3420	2603	0	02047	76	0661	14	998							
212	OBS	0285	1065	34131	2618					14	963							
	STD	0300	1029	3411	2623	0	01863	30	0759		952							
212	OBS	10374	0866	34052	2645						903							
	STD	0400	0817	3405	2652		01588		0931		889							
	STD	0500	0655	3404	2674	0	01381	6	1080		842							
212	OBS	10568	0570	34027	2684		- 4 0 5				819							
	STD	0600	0544	3407	2691		01223		1210		814							
212	ST0	0700	0475	3419	2708	0	01059	<i>+</i> 8	1324		804							
212	OBS STD	0757 0800	0444 0429	34251 3429	2717	0	00010	1	1031		802							
	S10	0900	0429		2721		00940		1424		803							
212	OBS	T0954	0397	3438 34416	2732 2736	U	00844	+4	1513		810							
212	SID	1000	0368	34416	2739	0	00782	2 3	1595		813							
	STD	1100	0342	3445	2743		00782		1671		819							
	STD	1200	0342	3448	2748		00739		1743		826							
	ST0	1300	0301	3451	2752		00665		1811		835							
	STD	1400	0285	3454	2755		00632		1876		846							
212	OBS	11475	0275	34558	2758	0	00002	. 0	1076		854							
- · ·	000	11112	0210	2.220	2100					. 4	0 ) 4							

EFERENCE AY ID.	SHIP	LATITU	DE LO	NGITUDE NGITUDE	MARS SOU	DEN	STATION	TIME	YEA	A R	ORIGIN	ATOP		DEPTH	DEPTH		WAVE ERVATION	s	WEA-	CLOUD		51	NODC
DE NO.	CODE	٠	1/10	1/10 2	10*	11.	MO DAY	HR,1.	10			N II W BI		BOITOM	S'MPL	S DIA	HGT PEP	SEA	CODE	TYPE A M	-	N	UNBER
311249	PW	3001	N 13	3955 W	122	09		18		6.9	N15 00	a		4205	17	10		3	x:	5 6			200
) 1   1 C + 7	1	3001	14   15	7722 W	1126	WAI		WINE			AID TE				1		, , ,	2 !	^ -	5 6	1		0003
						COLOR		SF	EED A	BARC METE	)• <del></del>	WEI	- 15	NO.	OBSER	CIAL							
						CODE	(m)	IR. FC		(mbs		BUL	В	DEPTHS	0636+	VA IIUI43							
							1	1 5	23	30	1 178	13	3 8	14									
				T				-	1	-		-	_	4			T	1				T	
	MESSENGE TIME	CAST	CARD	DEPTH (m)	T	*C	2		SIGMA -	-1	SPECIFIC VOLU	10.7	NAYN. M	. SOI	U N D O C IT Y	02 ml/1	PD4-P		TAL-P	NO2-4	NO3-N ug - of 1	\$1.04\$1 1 to = gu	рЧ
	HR 1/10				+			_		-		_	x 103	_			-	-	, .	-,	pg = 0	79	-
												1											
			STD	0000		8 ) 1	3482		2515		002822		0000		163								
	18	8	085	0000		801	3482		2515						165								
			STD	0010		797	3483		2516		002813	8	0 Ú 2 8		164								
	18	8	OBS	0012		796	3482		2517						164								
			STD	0020		796	3482		2517		002815		045€		155								
			STD	0030		796	3482		2516		002820	2	0085		167								
	18	8	OBS	0032		796	3482		2515						167								
			SID	0050	1	794	3482		2517		002822	6	0141	15	169								
	18	8	OBS	0052		794	3482		2517						170								
			STD	0075		7 + 7	346.		2516		002839	15	0 < 12	1.5	174								
	18	8	OBS	0080		798	3482		251€						175								
			STD	0100		794	3482		2517		002841	0	0283		177								
	18	8	035	0104		793	3481		2517						178								
			STD	0125		676	346.		2530		00272.		0352		144								
			5 <b>T</b> D	0150		539	3441		2545		002582	3	0419		103								
	18	8	OBS	0156		506	3426		2549						094								
	1.0		STO	0200		267	3411		2579		002267	U	0543		0.19								
	18	8	085	T0207		236	3403		2583						009								
			STD	0250		143	3409		2601		002062		0648		984								
			STD	0300		037	3411		2621		001880	2	0747		955								
	18	8	OBS	0315		006	3410		2627		00110				946								
		_	STD	0400		828	3402		2648		001626	-1	3922		893								
	18	8	OBS	T0429		776	3401		2655		001707	7	1077		877								
			STD	0500		679 566	34.6 3413		2673		001396		1073		852								
	1.0	c	SID	0600		524	3415		2693		001267	1	1203		824								
	18	8	0BS S <b>T</b> D	T0645 0700		487	3415		2700 2704		001059	. 7	1317		815								
	18	0	STD	0800 0861		430	3428 3433		2720 2727		000948	5 /	1417		803								
	10	0	STD	0900		390	3430		2731		000851	0	1507		804								
	1.0	^	STD	1000		362	3443		2739		006774	0	1588		810								
	18	0	OBS	T1069		344	3447		2744		00071		167		814								
			STD	1100		336	3448		2746		000717		1663		816								
			STD	1200		313	3450		2749		000684		1733		824								
			STD	1300		292	3451		2753		000652		1800		832								
			STD STD	1400 1500		274	3453 3455		2756		000622 000599		1664		841								
	18	٥	085	11687		235	3458		2759 2764		000793	, ,	1726		851								
	10	0	055	11001	U	600	2428	) 7	2104					14	873								

EFERENCE	7				MAR	SDEN	STAT	10N T	IME			ORIGI	NATO	2*8	T	DEPTH	DEPTH		WAY		WEA				NOD	
TAY ID.	- SHIP	LATITUI		LONGITUDE	200	APE		GMTI		YEAR	CRU		STAT			OT MOTTOM	OF S'MPL	"		PEPT SE	THER				NUME	
	+	2002	1/10	1710	122	+ +		_	194	1968	+		10		1,	1572	15	+	-		5 XZ	4 8			00	1.0
31 124	9 PW	3002	N [	13952 W	122	WAT		_	NIND	$\overline{}$	-	AIRT		•c	1	NO.			ו' ו		^2	1 410	'		00	1.
						COLOR		-	SPEEC	BAR MET		DRY	V	/ET c	VIS.	OBS.		ECIAL VATIONS	:							
						CODE	iml	DIR.	FORC			BUTB	8	UL8		DEPTHS			1							
								23	515	14	2	172	1	44	7	14						,		,		_
	MESSENGS		CAR	D Drozu	Ι,	°C		•/	510	MA-T		IFIC VOI		1 2 /	, M.		JND	O <sub>2</sub> ml		04 <b>-</b> P	TOTAL-F		NO3-N	5104-		рН
	HR 1/10	01 NO.	TYPE		'	C	,		310	m = 1	AN	OMALY-	x107		103	VELC	OCITY	0,7	νq	- 61/1	1/10 - وير	μg - α1/l	yg - 01/1	hð - a	1 1	_
	1111	1																								
		1 1	51	0000 di	1	777	34	74	2 5	515	0	0282	28	00	0.0		155									
	19	4	085	0000	1	777	34	744	2 5	515							155									
			51	0010	1	775	34	74	2 5	516	0	0282	14	00	28		150									
	19	4	089	5 0010	1	775	34	744	2 5	516							156									
			51	TD 0020		775	34	74		516		0282			56		158									
			51	TD 0030	1	774		74		516	0	0282	63	JU	85		159									
	19	4	OB5	5 0030	1	774	34	743	2 !	516						15	159									
	19	4	085	5 0049	]	774	34	745	2 !	516						15	162									
			S.	TD 0050	]	774	34	75	2	516	0	0283	19	01	41		163									
	19	4	083	5 0071	]	778	34	740	2	515						15	167									
			S.	TO 0075	]	778	34	75	21	515	0	0284	74	0.4	12	15	168									
	19	4	089	5 0095	3	1775	34	744	- 2	515						15	170									
			5	TD 0100	1	751	34	70	2 '	516	0	0262	?7U	Ú	83		163									
			S	TO 0125	]	1623	34	51	2	534	0	0268	42	0.2	52		127									
	19	4	089	5 0144	1	1526	34	376		545							098									
			S	TD 0150		491		33		549	0	0253	393	04	17		087									
	19	4	OB:	S T0195		1264		059		575							017									
			S.	TD 0200		1247		U 7		580		0225		-	37		012									
			S	<b>r</b> o 0250	- 1	1094	34	10	2	611	Û	0197	12	Úc	43		967									
	19	4	0B:	S 0289	(	989	34	110	) 2	630							936									
			5	TD 0300	(	964		10		633	0	0176	25	0 7	736		928									
	19	4	ОВ:	5 T0387	(	786	34	022	2	655							875									
			S	TD 0400	(	763	34	102	2	658		0152		09	01		868									
			S	TD 0500	(	0613	34	14	_	680	0	0132	262	10	44		825									
	19	4	OB:	S T0579		0528		044	_	691							804									
			5	TD 0600		0518		·U7		694		0119			170		804									
			S	TD 0700	(	)473		05		709	U	010	0.0	1 4	182		804									
	19	4	0 B			)444		+27t		719							804									
			_	U080 CT		0433		30		722		10043			81		1802									
				TD 0900		398		37		731	Ü	10045	3 J	1 4	+ 70		18U8									
	19	9 4	ОВ			0375	-	412		737							811									
			_	TD 1000		0367		443		739		10078			52		+812									
				TD 1100		0339		443		746		10071			27		818									
				TO 1200		0315		+51		750		1006			97		825									
				TD 1300		0294		+54		755		0006			762		833									
				TD 1400		0277		+55		757	U	1006	144	1 4	325		842									
	1 0	94	06	S T1474		0267	34	455t	2	758						14	851									

CTRY ID.	SHIP	LATITUE	DE LO	NGITUDE BUILDING	MARSDEN SQUARE	STATION	TIME (T)	YEAR		ATOR'S		DEPTH	MAX. DEPTH	OBS	WAVE SERVATIONS	WEA	CLOUD			NODC	
CODE NO.	10001	<u> </u>	1/10	1/10 " Z	10" 1"	MO DAY	HR,1/1	5	NO.	NUMBE		BOTTOM	OF S'MPL"		HGT PER S	000	TYPE AMI			STATION NUMBER	
311249	PW	3000	N 13	3958 W	122 09	03 21	192	1968	N15 0	1		4297	15		1 1			-	-		
				,	WA		WIND		A IP TI	MP. °C	-	_	15	26	[ ] [	2   x1	6 6	1		0011	
					COLOR	TRANS. D		200	ER DRY	WET	VIS.	NO. OBS. DEPTHS	SPE	ATIONS							
					-	2	9 51	-		150	-	14									
	MESSENGE				T	-	7 3 1	-   1-	1 120			1					_			.,	
	TIME OF HR 1/10	NO.	C ARO TYPE	DEPTH (m)	7 %	5 *4.	SII	3MA-1	SPECIFIC VOL-		X 10 <sup>3</sup>	. VEFC	CITY	02 mi/3	PO 4-P 29 - 01/1	101A L-P yg + ol,1	NO2-N µg - al l	NO3-N NG - ai I	St O4~S		
			SID	0000	1776	3475	1	516	00301												
	192		085	0000	1776	3474		516	00281	5 (	0000		155								
	192		085	0007	1774	3474		516					155								
			SID	0010	1773	3475	_	516	00 101				155								
			STD	0020	1772	3475		517	002813		0028 0056		156 157								
	192		085	0029	1771	3474		517	00201.		0000		158								
			STD	0030	1771	3475	_	517	002817		0084		158								
	192		085	0047	1771	3475		517	30201	2	,054		161								
			STD	0050	1772	3475		517	062823	1 0	141		162								
	192		OBS	0074	1774	3474		516	002023	1 (			166								
			STD	0075	1774	3475		516	002838	4 (	212		167								
	192		085	0096	1769	3474		517	002030		12 12		169								
			SID	0100	1750	3472	_	520	002810	2 0	282		163								
			STD	0125	1632	3456		535	002667		351		130								
	192		085	0145	1537	3443		548	00200.	0	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		102								
			STD	0150	1511	3440	_	550	002530	2 0	1416	150	_								
	192		085	T0195	1301	3414		574	002240			150									
			SID	0200	1284	3414		78	002277	4 0	1536	150									
			STD	0250	1121	3413		508	001996		1643	149									
	192		085	0293	0998	3411		528	001770			149									
			SID	0300	0980	3410		30	001788	7 0	737	144									
	192		085	0391	0778	34020	0 26	556				146									
			STD	0400	0762	3402		558	001527	9 0	903	148									
			SID	0500	0613	3403		79	001328		046	148									
	192		085	T0589	0519	3404		92	001320		0 40	148									
			STD	0600	0514	3406	_	94	001193	5 1	172	148									
			SID	0700	0473	3419		709	001057	-	285	148									
	192		085	0781	0441	34280		719	001031	7 1	. 0 )	148									
			SID	0800	0433	3430		722	000937	4 1	384	148									
			STD	0900	0396	3437	2	731	000850		474	148									
	192		OBS	10976	037J	3442		738				148									
			STD	1000	0362	3443		39	000774	6 1	555	148									
			STO	1100	0334	3448	27	46	000712		629	14									
			STD	1200	0309	3452	27	152	000661		698	148									
			SID	1300	0289	3455	27	56	000622		762	148									
			SID	1400	0274	3456	27	58	000603		024	148									
			STD	1500	0262	3456	27	E Q	000595		883	148									
	192		085	T1504	0262	34563	2.7	59		-		148									

ENCE	SHIP			- E	MARSDEN	STATION TH				ATOR'S		DEPTH	MAX.	-	WAVE		WEA	CLOUD			NODC
10.	CODE	LATITU	1/10	GITUDE E	SQUARE	MO DAY H	YEAR	CRUISE NO.		TATION NUMBER		TO BOTTOM	OF S'MPL'S		HOTP		THER CODE	TYPE AM	_1		STATION NUMBER
1249	PW	3004		955 W			86 196	8 N15	01	2		4389	15	30		2		6 2			001
					WAI		Third T			MP. C	Τ,	NO.				' -					001
					COLOR	TRANS OIR,	SPEED M	ETER	DRY	WET	CODE	000	OBSERV.	ATIONS							
					CODE	1771	FORCE (n		ULB	BULB	-										
						34	505 2	64 1	89	133	1	14							,		
	MESSENGR TIME HR 1/10	CAST NO.	CARD TYPE	DEPTH (m)	T °C	s ·/	SIG M A - 1	SPECIFIE	VOLU ALY-X	IME DY	△ D N. M 10 <sup>3</sup>	SOL VELO		0 2 ml/		4-P 01/1	TOTA L - P	NO2-N vg + at/l	NO3-N	\$1 O4++! µg = of/	
												-							I		
			STD	0000	1794	3482	2517	002	807	1 0	000		161								
	186	5	OBS	0000	1794	34820	2517						161								
			STD	0010	1792	3482	2517	002	805	7 0	028		162								
	186	5	OB5	0010	1792	34820	2517						162								
			STD	0020	1790	3483	2518		800		056		163								
	10		STD	0030	1789	3483	2519	002	747	3 0	U 8 4		165								
	186	)	085	0030	1789	34831	2519	00.	700		1		165								
			STD	0050	1794	3485	2519	002	799	6 0	140		170								
	186	5	085	0050	1794	34853	2519				- ,		170								
			STD	0075	1799	3486	2519	002	612	3 0	2 l U		175								
	186	5	OBS	0075	1799	34863	2519						175								
	10.		STD	0100	1796	3486	2519	002	817	8 0	∠81		178								
	186	,	085	0100	1796	34857	2519	0.0			2.0		178								
			STD	0125	1642	3459	2535		668		349		133								
			5TD	0150	1494	3437	2552	002	516	4 0	414		089								
	186	0	0BS S <b>T</b> D	0152 0200	1482 1208	34356 3406	2553 2586	003	193		532		085 998								
	186	_	OBS	10208	1172	34025	2590	002	173	4 0	232		987								
	100	9	STD	0250	1381	3406	2609	001	961	. a	636		962								
			STD	0300	0977	3409	2630		788		730		933								
	186	4	OBS	0305	0967	34097	2632	001		, ,	, 50		930								
	100		STD	0400	0782	3402	2655	001	557	's n	898		875								
	186	4	085	T0409	0766	34017	2657	00.		0 )	0,10		870								
	100	,	STD	0500	0615	3403	2679	001	332	b 1	0 4 2		826								
			STD	0600	0497	3408	2697		157		167		795								
	186	5	OBS	T0606	0491	34083	2698	00.		, ,	- 0 .		794								
	100	-	STD	0700	0448	3421	2713	0.01	012	6 1	275		793								
			STD	0800	0410	3431	2725		902		371		795								
	186	5	085	0810	0407	34321	2726	•		•			796								
	- 00	-	STD	0900	0384	3438	2733	000	829	2 1	458		802								
			STD	1000	0359	3444	2740		763		537		809								
	186	5	OBS	71006	0358	34443	2741			_			810								
		-	STD	1100	0337	3447	2745	000	727	1 1	612		817								
			STD	1200	0316	3449	2748		692		683		825								
			STD	1300	0296	3451	2752		658		750		833								
			STD	1400	0279	3454	2755	000	627	7 7 1	d 15	14	843								
			STD	1500	0263	3456	2759	000	1597	1 ì	376	14	853								
	186	5	OBS	T1531	0258	34566	2760					14	857								

CTRY ID.	CODE	LATITUDE	i	ONGITUOE LENGTH	MARSDEN SOUARE	STATION TI	YEAR		TOR'S ATION JMBER	DEPTH TO BOTTOM	MAX. OEPTH OF S'MPL"S		WAVE ERVATIONS	WEA- THER CODE	CLOUD		5	NODC STATION NUMBER
	-+		/10	1710		MO DAY H	7	+ + + -			1	-	MGT PER SEA	+	TYPE A.M	1		
31 124	+9 PW	3001	N   1	3951 W		03 23 1		8 N 15 0 1 3		4480	42	07	1	.  ×1	2 3			0013
					COLOR		SPEED ME	ł0-	- VIS	NO. 085.	SPEC							
					CODE	IRANS. OIR.	FORCE (m)		BULB	DEPTHS	OBSERV	4 11014 2						
						09	509 26	58 183	144 8	21								
	MESSENGR	0.47						SPECIFIC VOLUN		501			1 00 0					T
	10457	T NO.	CARD	DEPTH (m)	1 "C	s ·/	SIGMA-1	ANOMALY-XID	E ∑ ∆ D DYN. A x 10 <sup>3</sup>	A. VELC	OCITY	O 2 ml/l	PO4-P	1 to . gu	NO2-N ug - 01/1	NO3-N	\$1 O4-51 ug - a1/1	
	HR 1/10					-			+ * * * *	+	_		1					+
		1	STD	0000	1793	3 <b>4</b> 80	2516	0028171	. 000	0 15	161		1		Į	l	l	
	186	,	085	0000	1793	34803	2516	302017.	. 000		lol							
		•	STD	0010	1791	3480	2516	0028165	0021		162							
	186	5	OBS	0010	1791	34802	2516				162							
			STD	0020	1788	3480	2517	0028120	0056		164							
			STO	0030	1786	3480	2518	0028099	008	4 15	163							
	186	5	085	0630	1786	34804	2518				163							
			510	0050	1789	3482	2518	0028133	014		168							
	186	5	OBS	0050	1789	34818	2518				168							
			STD	0075	1793	3483	2518	0026229	021		173							
	186	5	085	0075	1793	34829	2518	000000			173							
	100		STD	0100	1757	3476	2521	0028002	028		166							
	186	)	0BS ST0	0100 0125	1757 1591	34756 3448	2521 2539	0026363	034		166 116							
			STO	0150	1439	3427	2556	0024756			070							
	186		085	0152	1439	34254	2557	0024756	041		070							
	100	,	STD	0200	1171	3401	2589	0021626	052		985							
	186		085	T0205	1150	33992	2592	0021020	0,2		978							
			SID	0250	1052	3404	2613	0019437	053		951							
			STD	0300	0952	3409	2034	0017489			924							
	186	5	OBS	0305	0942	34097	2636			14	921							
			5 <b>T</b> D	0400	0778	3404	2657	0015409	068		874							
	186	5	085	0405	0770	34032	2658				871							
			STO	0500	0622	3404	2679	0013344			829							
			STD	0600	0509	3409	2697	0011651	115		800							
	186	5	085	T0611	0499	34094	2698				796							
			STD	0700	0459	3420	2711	001033			798							
			S <b>T</b> D	0800	0421	3430	2723	0009232	136		800							
	186	5	065	0810 0900	0417 0390	34313 3437	2724	000013	1/6		800							
			STD STD	1000	0362	3444	2732 2740	0008428			804 010							
	186		085	T1007	0360	34439	2740	0001705	125		810 811							
	100	3	STD	1100	0340	3447	2745	0007269	160		818							
			STD	1200	0319	3450	2749	0006874			826							
			STO	1300	0299	3452	2752	0006560			835							
			STO	1400	0281	3454	2756	0006264			844							
			SID	1500	0264	3456	2759	0005975			854							
	186	5	085	T1517	0261	34565	2759			14	855							
	20€	5	085	T1652	0240	34585	2763			14	869							
			510	175J	0228	3460	2765	0005385			881							
	2.0		STO	2000	0201	3462	2769	0005023	214		912							
	20€	Ó	085	2162	0187	34635	2771				934							
	3.5		STD	2500	0169	3465	2774	000458	238		984							
	206	0	085	T2667	0162	34661	2775	2000	7.0		010							
	206	5	510 085	3000 T3177	0155 0152	3467 34674	2776 2777	000441	260		065 094							
	206		085	T 3656	0192	34682	2778				176							
	200		510	4000	0149	3468	2778	000449	3.05		237							
				-0.00	014	2400	£ 4 F G	200747										
	20€	5	085	T4132	0149	34684	2778			15	261							

NO. 1/10 1/10 2 10 1 1 NO DAY HR.I/10 NO. NO. MOMBER STATES OIL HOMES STAT	ERENCE	SHIP	1 . 7(7.)	DE 10	NGITUDE STOOT	MARSDI	N F	ITAT2	ON THE		EAR		ORIGINA			DEPTH	1 DEFIE	H OB	WAVE SERVATION	ONS	WEA- THER	CLOUD		1 2	ATION
Williams   Cast   Card   Car					1/10												S'MPL	1							UMBER
	11249	PW	3000	N   13	1954 W	122					968	N1		_		4023	3 15	31		2	X1	2 6			0014
							WAT	ER	W						VIS.		SPI	ECIAL							
									DIR.	OR I					cond		C) B S E R	VATIONS							
CATE   CATE						F	001	-	0.0						, ,	1./1	-								
STD   0000			,						09	303	20	0	200	_		14	]		_					-	
STD   0000   1826   3492   2516   0028118   0000   15171   1		MESSENGE	CAST		DEPTH (m)	1 1	С	5	٠/	SIGMA	\_T			1,5 C	E △ D			02 ml/							рН
194			T NO.	ITYE				-		_					x 103	****	.00111		100-		pg - u//(	Dg - 0171	2g = 01 1	29 - 0.71	
194						1					1											1		1	
STD   OO10		•										00	2811	8 (	0000										
194		194	4									0.0	2001	, .											
STD   0020   1817   3492   2519   0027965   0056   15172   STD   0030   1813   3492   2520   0027911   0084   15173   194   085   0030   1813   34917   2520   15176   15170   15176   15176   15176   15170												00	2806	6 (	JU28		-								
194		194	4						_			0.0	370:		205.		_								
194																									
STD   0050												0.0	2791	1 (	JU 8 4										
194		194	4									0.0	2705	,	. )										
194												00	2795	4 1	)14()										
194		194	4									0.0	2805	0	1210										
STD   0100   1815   3493   2520   0028075   0280   15185   1		10/	ta .									00	2000	′	J L I U										
194		190	-									0.0	2807	5 (	2280										
STD   0125   1709   3471   2529   0027314   0349   15155     STD   0150   1575   3450   2544   0025941   0416   15116     194   085   0152   1563   34480   2545     15112     STD   0200   1220   3407   2585   0022082   0536   15003     194   085   T0202   1209   34062   2586   14999     STD   0250   1096   3410   2610   0019747   0641   14968     STD   0300   0984   3410   2630   0017952   0735   14936     194   085   0306   0971   34103   2632   14932     STD   0400   0776   3402   2656   0015498   0902   14873     194   085   T0410   0758   34010   2658   14867     STD   0500   0610   3403   2680   0013260   1046   14824     STD   0500   0494   3409   2698   0011408   1169   14794     194   085   T0610   0485   34096   2700   14792     STD   0700   0450   3420   2712   0010224   1278   14794     194   085   0808   0413   34310   2725     STD   0900   0387   3438   2733   0009173   1375   14798     STD   1000   0361   3444   2740   0007660   1542   14810     STD   1000   0361   3449   2740   0007660   1542   14810     STD   1200   0316   3453   2752   0006618   1085   14825     STD   1300   0296   3455   2755   0006304   1749   14844     STD   1400   0280   3456   2757   0006918   1811   14844     STD   1500   0265   3456   2759   0005987   1872   14854		19/	4									- 0		-	, 0										
STD		17,	-									0.0	2731	4	349										
194																									
STD   O200   1220   3407   2585   O022082   O536   15003     194		194	4									-		-											
194		• /-										0.0	2208	2	0536										
STD   0250   1096   3410   2610   0019747   0641   14968		194	4					340	062	258	6					14	4999								
194 OBS 0306 0971 34103 2632 14932  STD 0400 0776 3402 2656 0015498 0902 14873  194 OBS T0410 0758 34010 2658 14867  STD 0500 0610 3403 2680 0013260 1046 14824  STD 0600 0494 3409 2698 0011468 1169 14794  194 OBS T0610 0485 34096 2700 14792  STD 0700 0450 3420 2712 0010224 1278 14794  STD 0800 0416 3430 2723 0009173 1375 14798  194 OBS 0808 0413 34310 2725 14798  STD 0900 0387 3438 2733 0008327 1462 14803  STD 1000 0361 3444 2740 0007660 1542 14810  194 OBS T1003 0360 34441 2740 1540 1542 14810  STD 100 0316 3453 2752 0006618 1685 14825  STD 1200 0316 3455 2755 0006304 1749 14834  STD 1400 0280 3456 2757 0006105 1811 14844  STD 1500 1500 0265 3456 2759 0005987 1872 14854		- /										00	1974	7	0641	14	4968								
STD				STD	0300	09	84	34	10	263	0	00	1795	2	735	14	4936								
194		194	4	OBS	0306	09	71	34	103	263	2					14	4932								
STD				STD	0400			341	2	265	6	00	1549	8	0902										
STD		194	4																						
194 OBS T0610 0485 34096 2700 14792   STD 0700 0450 3420 2712 0010224 1278 14794   STD 0800 0416 3430 2723 0009173 1375 14798   194 OBS 0808 0413 34310 2725 14798   STD 0900 0387 3438 2733 0008327 1462 14803   STD 1000 0361 3444 2740 000766 1542 14810   194 OBS T1003 0360 34441 2740   STD 1100 0337 3449 2747 0007087 1616 14817   STD 1200 0316 3453 2752 0006618 1685 14825   STD 1300 0296 3455 2755 0006304 1749 14834   STD 1400 0280 3456 2757 0006105 1811 14844   STD 1500 0265 3456 2759 0005987 1872 14854				_																					
STD   0700   0450   3420   2712   0010224   1278   14794				STD								0.0	1140	8	1169	_									
STD		19	4																						
194 OBS 0808 0413 34310 2725 14798  STD 0900 0387 3438 2733 0008327 1462 14803  STD 1000 0361 3444 2740 0007660 1542 14810  194 OBS 11003 0360 34441 2740 14810  STD 1100 0337 3449 2747 0007087 1516 14817  STD 1200 0316 3453 2752 0006618 1685 14825  STD 1300 0296 3455 2755 0006304 1749 14834  STD 1400 0280 3456 2757 0006105 1811 14844  STD 1500 0265 3456 2759 0005987 1872 14854																									
STD												0.0	0917	3	1375										
STD     1000     0361     3444     2740     0007660     1542     14810       194     08S     T1003     0360     34441     2740     14810       STD     1100     0337     3449     2747     0007087     1616     14817       STD     1200     0316     3453     2752     0006618     1685     14825       STD     1300     0296     3455     2755     0006304     1749     14834       STD     1400     0280     3456     2757     0006105     1811     14844       STD     1500     0265     3456     2759     0005987     1872     14854		194	4						-					_											
194 OBS T1003 0360 34441 2740 14810 STD 1100 0337 3449 2747 0007087 1616 14817 STD 1200 0316 3453 2752 0006618 1685 14825 STD 1300 0296 3455 2755 0006304 1749 14834 STD 1400 0280 3456 2757 0006105 1811 14844 STD 1500 0265 3456 2759 0005987 1872 14854																									
STD     1100     0337     3449     2747     0007087     1616     14817       STD     1200     0316     3453     2752     0006618     1685     14825       STD     1300     0296     3455     2755     0006304     1749     14834       STD     1400     0280     3456     2757     0006105     1811     14844       STD     1500     0265     3456     2759     0005987     1872     14854												00	0 /66	U	1542										
STD     1200     0316     3453     2752     0006618     1685     14825       STD     1300     0296     3455     2757     0006304     1749     14834       STD     1400     0280     3456     2757     0006105     1811     14844       STD     1500     0265     3456     2759     0005987     1872     14854		19	4									0.5	7	-											
STD 1300 0296 3455 2755 0006304 1749 14834 STD 1400 0280 3456 2757 0006105 1811 14844 STD 1500 0265 3456 2759 0005987 1872 14854																									
STD 1400 0280 3456 2757 0006105 1811 14844 STD 1500 0265 3456 2759 0005987 1872 14854																									
STD 1500 0265 3456 2759 0005987 1872 14854																									
· · · · · · · · · · · · · · · · · · ·																									
174 ODS 11727 0202 34302 2137 14027		10	/.									00	10348	1	1012										
		19	4	085	T1525	0.2	02	34	562	275	9					14	4857								

NO.   SHEPTON   STATION	
31   1249   PW   3005 N   13953 W   122   09   03   25   195   1968   N15   015   4755   15   12   2   X2   6   8	5-N S104-51
WATER   WIND   SAPO   COLOR   TEAMS   COSE   TEAMS   COSE   TEAMS   COSE   TEAMS   COSE   TEAMS   COSE   TEAMS   COSE   TEAMS   COSE   TEAMS   COSE   TEAMS   COSE   TEAMS   COSE   TEAMS   COSE   TEAMS   COSE   TEAMS   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COSE   TEAMS   COSE   COS	N 51.04-51 of 1 up - of-1
COLON   TANK   DIR.   POR   METER   BULB   WILL   CODE   DRS   D	,-N 510a-51 of 1 yg - at. 1
COOR   W3   W3   Force   India   BULE   BU	;-N 51.O4-5; of 1 up-of:1
MESSENGR   CAST   CARD   DEPTH   mi	-N 510a-51 of 1 up - of 1
STD   OOO	N 5104-51 at 1 ug - at 1
STD 0000 1800 3480 2514 0028357 0000 15163 195 0B5 0000 1800 34802 2515 15163 195 0B5 0009 1794 34802 2515 15162 STD 0010 1793 3480 2515 0028226 0028 15162 STD 0020 1784 3479 2517 0028122 0056 15161 195 0BS 0028 1780 34787 2518 0028061 0085 15162 STD 0030 1780 3479 2518 0028061 0085 15164 195 0BS 0047 1780 34795 2518 15164	1 1 1
195	
195	
195 085 0000 1793 3480 2515 0028226 0028 15162 15160 1793 3480 2515 0028226 0028 15162 15161 195 085 0028 1780 3479 2518 0028061 0085 15161 195 085 0047 1780 34795 2518 15164 15164 15164 15164 1780 34795 2518 15164 15164	
STD 0020 1784 3479 2517 0028122 0056 15161 195 085 0028 1780 34787 2518 15161 STD 0030 1780 3479 2518 0028061 0085 15162 195 085 0047 1780 34795 2518 15164 195 085 0047 1780 34795 2518	
195 OBS 0028 1780 34787 2518 15161 STD 0030 1780 3479 2518 0028061 0085 15164 195 OBS 0047 1780 34795 2518 15164	
5TD 0030 1780 3479 2518 0028061 0085 15164 195 0BS 0047 1780 34795 2518 15164	
195 OBS 0047 1780 34795 2518 15164	
195 085 0047 1760 34773 2510 2020103 0101 15164	
STD 0050 1779 3479 2518 0020103 0141 13104	
15167	
195 085 0071 1770 3770 2011 15169	
510 0075 1770 3477 2520	
195 005 0094 1715 34155 0027644 0291 15157	
STD 0100 1730 3472 2525 0027642 0261 15157 STD 0125 1575 3444 2539 0026304 0348 15111	
195 OBS 0144 1480 34294 2549 15084	
STD 0150 1462 3427 2551 0025229 0412 15077	
195 OBS T0193 1328 34154 2570 15039	
STD 0200 1302 3415 2575 0023046 0533 <b>1</b> 5031	
STD 0250 1133 3413 2606 0020179 0641 14981	
195 OBS 0287 1028 34110 2623 14950	
STD 0300 1000 3410 2627 0018217 0737 14941	
195 OBS T0385 0830 34027 2649 14891	
STD 0400 0797 3403 2654 0015740 0907 14881	
STD 0500 0617 3404 2679 0013307 1052 14827	
195 085 10975 0924 9442 2071 0011750 1179 14901	
510 0000 0311 3101 2211 2010220 1298 14900	
310 0700 3430 3430 14,901	
195 005 0705 0457 54212 2223 222221 1344 14807	
STD 0800 0426 3430 2722 0009291 1300 14002 STD 0900 0393 3437 2731 0008471 1475 14806	
370 0700 0375 2120 2730	
195 OBS 10959 0375 34406 2736 14700 STD 1000 0363 3442 2738 0007846 1556 14810	
STO 1100 0337 3445 2743 0007412 1633 14816	
SID 1200 0314 3447 2747 0007008 1705 14824	
STD 1300 0294 3450 2752 0006627 1773 14832	
STD 1400 0278 3453 2755 0006295 1638 14843	
195 OBS 11456 0270 34547 2757 14849	

NCE ID,	SHIP	LATITU	DE	LON	NGITUDE LANGUE	M A P SQU	SDEN	STAT	ION TI		YEAR	COLUM	ORIGIN			DEPTH	Derir	08	WAVE SERVATIONS	W	/EA-	CLOUD			NODC TATION	]
NO.	CODE		1/10		1/10 E	10*	1.		DAY H			CRUI		STAT NUN	TION ABER	BOTTO	A S'MPL		HGT PEP S	1 6	ODE	TIPE AM	-	l ,	UMBER	İ
240	Div	3001		1.7										_			+-		1			1				1
249	PW	3004	N	13	955 W	122	ph				968	N1			-	4755	15	15		2   )	X 1	6 7	i		0016	,
							WA	1	W	SPEED	BAR		AIR TE		VIS	NO. 08S.	SPE	CIAL								
							COLOS	TRANS,	DIR.	FORCE	MET!		DRY Bulb		VET COD	DEPTHS	OBSER	/ATIONS								
									10	508	27		172	١,	61 7	14	<del>                                     </del>									
Г		7			1	т —		1	10	300	1 2 1	1	1/2	_ ^	_	_	1			F				1		_
1	MESSENGR TIME	CAST	CAF		DEPTH (m)	T	*C	s	•/	SIGM	A - T		MALY-XI		Ž ∆ D	s. sc	UND	02 ml/	PO4-P	TOTAL		NO2-N	NO3-N	5104-5	рН	
	HR 1/10	1								1		-			x 10 <sup>3</sup>	VEL	OCITY		μg - α1/1	ng - e	01/!	µg = q1/i	μg - at/I	μg = ot/1		
										1																
			S	T D	0000	1	780	34	69	251	1 1	00	2866	6	0000	19	155		1							
	201	1	08		0000		780		693	251							155									
				τD	0010		774	34		251		00	2856	2	0029		155									
	20]	1	08	-	0010		774	-	693	251							155									
				TD	0020		762	34		251			2862		005		153									
	200			TD	0030		752	34.		251		0.0	2864	9	0088		151									
	20		QB		0030		752		620	251							151									
	20	1	QB		0049		739		625	251			37. 0		0.1		151									
	201	,	08	10	0050 0074		740	34	625 625	251 251		ŲΟ	2840	1	014		5151 5156									
	2.0			3 TO	0075		742	34		251		0.0	2852	w	021		156									
	2 u j	1	ОВ		0098		726		613	25]		00	201.	O	021		155									
		_		TD	0100		717	34		251		0.0	2821	7	0 2 8 5		156									
				TD	0125		609	34		253			2689		0354		122									
	20]	l	ОВ	S	0149		509		336	254							093									
			S	TD	0150	1	505	34	33	254		00	2568	7	0420		092									
			\$	OT	0200	1	313	34	13	257	7 1	00	2344	1	054	2 15	035									
	201	l	QB		T0200	1	313	34	125	257	7 1					1.5	035									
				TΟ	0250		143	34	12	260	3	00	2045	3	065	2 14	985									
	20]	1	OB.		0298		010		109	262							945									
				ΤO	0300		006	34		262		00	1826	6	0749		944									
	20]	1	ОΒ	-	T0398		827		J 2 2	264							1892									
				TO	0400		823	34		264			1616		092		891									
	20.			T D	0500		645	34		26		00	1358	4	1070		838									
	20]	L	OB.		T0594		526	_	074	269		0.0	1300	,	110		806									
			_	TD.	0600		522	341		269			1188		119		806									
	201	1	QB:	TD c	0700 0786		466 425	34	19 273	270		0.0	1049	U	130		801									
	20)			a TD	0800		420	34.		272		0.0	0929	/.	1408		799									
			_	TO	0900		386	34		273			0838		1496		803									
	20]	ı	ОВ		T0982		361		431	274		0.0	0008	7	1-496		807									
		•		10	1000		356	34		274		0.0	0763	9	157		808									
				τō	1100		329	34		274			0721		165		813									
				τĐ	1200		336	34		274			0683		172		820									
			_	<b>T</b> D	1300		287	34		275			0649		1788		829									
			5	T Đ	1400		271	34		279			0618		185		840									
	201	1	QB	5	T1485		260	34	556	275							849									

							ARSDEN	T	STATIC	N TIA	ΛE	YEAR	-	IGINA			DEPTH	DEPTH	08	WAVE SERVATIONS		WEA- THER	CLOUD		ST	ATION
CODE		LATITUE	E	LONG		5 7	QU ARE	1			_	TEAR	CRUISE NO.		A TION J M BER	, в	OTTOM	S'MPL	S DIR.	HGT FER S	EA	CODE	TYPE AMI		N	UMBER
-	-		1/10		11/10	- 10		_+-		Y HR		968	N15			1,	• 755	15	0.7		2	×1	2 6			0017
9 PW		3008	N	139	158 W	1.2		WATE			98   1		A 18	TEM			NO.		1	) ' '	-	-				
							COL	-7			SPEED	METE	)·		WET	CODE	OBS.	ORSERV	CIAL ZATIONS							
							co		(m)	01R.	FOPCE	(mbs		.8	8 U L B	1	DEPTHS									
								1		08	520	2.7	4 18	3	150	7	14									
<u></u>			_										SPECIFIC	VOLUM	AE S	Δο	50	UNO	02 ml/	PO4-P		TAL-P	NO2-N	NO3-N	5104-5	ρН
TIM	NE O	CAST NO.	CAR		OEPTH U	n)	1 °C		5 .	···	SIGM	A-1	ANOMAL	A-110	,   0	rN, M. x 10 <sup>3</sup>	VEL	OCITY	07	µg = 01/1	10	- 01	P.fo + gu	μg - at'l	µg + at 1	
HR 1	/10	-		-		-	_		-	_	-															
-						.	3.70	0	347		25	1 1	0028	1574	ں د	000	1 15	156								
				T D	0000		178 178		347		25		0020	, , , .	•	- 00		156								
	198		08	_	000		177		347		25						15	155								
	198	3	0 B	T D	001		177		347		25		0028	3424	4 0	028	15	156								
				TD	002		177		347		25		0028			057	1:	157								
				TD	003		177		347		25		0028	338	0 0	U 85		159								
	198	R	08		003		177	4	347	728	25	15						159								
	198		08	-	004		177	8	347	778	25	1.7						5164								
	•			TD	005	0	178	7	348	31	25	18	0028			142		5167								
				TD	007	5	183	Ú	349	7	25	20	0028	305	Ú (	212		5186								
	198	8	οв	S	007	5	183	0	349	774	25	20						5186								
	198	8	08	S	009	4	182		349		25							5188								
			S	TD	010		182		349		25		002		-	1482		5188 5188								
				10	012		187		349		25		002	190	4 (	1352		5188								
	198	R	08		014		180			932	25 25		002	716	a (	0421	_	5169								
		_		TD	015		171		348	363	25		002		,			5075								
	198	8	08		1018		136		34		25		002	309	5 (	0546	. 1	5056								
				CTO	020		117		34		26		001			0653	1	4980								
	19	0	08	STD Re	028		10			110		26					1	4942								
	19	0		STD	030		09		341		_	30	001	789	5	747	1	4933								
	19	ρ	OE		1037		0.8			033		49						4891								
	131	U		STD	040		071		34	03	26	56	001	554	-	3915		4877								
			_	STD	050		06		34	03	26	79	001	326	7	1359		4824								
	19	8	0.6		T056		05.	29	34	027		89						4802								
	- /	-		STO	060		05	10	34			95	001		-	1184		4801								
				STO	070	0	04		34			10	001	042	9	1295		4798								
	19	8		35	075	4	04			241		16				, 20		4799								
			9	STD	080		04		34			22	000		-	1394		4800								
				STD	090		0.3		34			32	000	841	13	148		4804 4806								
	19	ē		BS	T095		03			410	_	737	0.00	776	. 6	156		4809								
				STD	100		03		34		_	139	000	1732		163		4815								
				STD	110		03		_	45		744		1693	-	171:		4822								
				STD	120		0.3			48	_	748				1/7		4832								
				STD	130		92			51		752		658 627	-	184		4841								
				STD	140		0.2		_	54		765 766	000	104	1	1 24		4851								
	10	8 0	0	8 S	T146	58	02	11	34	554	- 2	מרי,					-		-							

FERENCE	SHIP	LATITU	DE LO	NGITUDE JOURNAL STORY	MARSDEN	STATION T	IME YEAR	QRIGIN			DEPTH D	MAX. DEPTH OB	WAVE SERVATIONS	WEA	- CLOUD		ς!	NODC
Y ID.	CODE	•	1/10	17/10	10* 1*	MO DAY		CRUISE S	TATION NUMBER	8		MPL"S DIR		COD				UMBES
1124	9 PW	3004	N 13	957 W		03 28	189 1966	N15 01	8	4	+389	16 08		2 ×2	2 7			001
					WA	TER V	VIND BAR	O- AIR TE	MP. C	T'I	NO.		1' ' '		, -		'	
					COLOR	TRANS. DIR.	SPEED MET	ER DRY	W ET BULB	CODE,	OBS. DEPTHS OF	SPECIAL BSERVATIONS						
					CODE		FORCE (mb		-	$\vdash$								
	r		r <del></del>	1		0.8	515 25	183	156	7	14		L	,				
	MESSENGA TIME	CAST OF ND.	CARD	DEPTH Lm I	r °c	5 %.	SIGMA-T	SPECIFIC VOLU	ME DY	A. D.	SOUNE		PO4~P	TOTAL-		NO3-N	SI O 4 Si	p.
	HR 1/10		TTPE						×	103	VELDEI		μg - α1/1	μg = a1/l	ug = at/1	yg = a1/1	νg - α! Ί	
							1											
			STU	0000	1768	3469	2513	002844	8 0	000	1519							
	18		OBS	0000	1758	34695	2513				1515							
	13	9	0B5	0009	1766	34686	2513				1515							
			STU	0100	1766	3469	2513	002842		U 2 B	1519							
			STD	0020	1762	3468	2514	002840		J57	1515							
			STD	0030	1759	3469	2514	002838	9 0	085	1515							
	18	0	nes	0033	1758	34677	2515				1515							
			STU	0050	1768	3472	2515	002836	6 0	142	1516	-						
	18	9	985 610	0051	1769	34721	2515	0070:		110	1516							
		_	STD	0075	1744	3465	2516	002841	8 0	213	1515							
	18	u .	085	0079	1740	34634	2516				1515							
			STD	0100	1773	3477	2518	002827	0 0	284	1517							
	18	0	065	0102	1776	34773	2518				1517							
			STD	0125	1674	3463	2531	002710		353	1514							
	1.0		STD	0150	1558	3448	2546	002572	0 0	419	1511							
	18	4	085	0153	1544	34456	2547	00000		L	1510							
	1.0	_	STD	0200	1311	3413	2572	002336	0	542	1503							
	18	4	OBS	10204	1294	34113	2574	002070	, .		1502							
			STD	0250	1154	3411	2600	002070		652	1498							
		_	STD	0300	1018	3411	2624	001846	/ 0	750	1494							
	18	4	OBS	0307	1001	34106	2627	001500		0.00	1494							
			STD	0400	0804	3402	2652	001590	5 0	922	1488							
	18	4	OB5	10412	0782	34011	2655	0010:-			1487							
			STO	0500	0643	3403	2675	001369		070	1483							
	1.0		STD	0600	0525	3408	2694	001192	5 1	198	1480							
	18	7	OBS	10620	0506	34090	2697				1480							
			STD	0700	0467	3419	2709	001050		310	1480	-						
	10		STD	0800	0424	3429	2722	000934	1 1	409	1480							
	18	9	OBS	0827	0414	34311	2725				1480							
			STD	0900	0392	3436	2731	000853	_	499	1480							
	18	0	STD	1000	0364	3442	2738	000784	· 5 1	580	1481							
	18	4	OBS		0355	34441	2741	000734	5 1		1481							
			STD STD	1100 1200	0338 0315	3446 3448	2744 2748	000734		656 738	1481							
				1300						728	1482							
			STD		0294	3451	2752	000661		796	1483							
			STD	1400	0276	3453	2755	000629		860	1484							
	1.0	_	STD	1500	0260	3455	2759	000598	/ 1	922	1485							
	18	4	OBS	T1562	0252	34567	2760				1489	9.4						

CE	SHIP	LATITUI	DE	LON	GITUDE # 0	MARS SQUA	DEN	STATI	ON TIA		YEAR	CRUISE	DRIGINA	TOR'S ATION		DEPTH TO	DEPTH OF	. 1	WAVE SERVATI	DNS	W EA-	CC	DUD		5*	DDC ATION	
10.	CODE	•	1/10		SITUDE E	10*	70	MO D	AY MR	1/10		NO.		LMBER	₽	MOTTO	Z.W br.	S DIP.	H GT PE	SEA	CODE	TEPE	ANT		141	J*⊁BER	
249	PW	3007		139	957 W	122					968	N15	019	)	4	+663	16	0.9		2	X1	6	3			0019	
_						΄ Γ	WAT	TER	w	IND	BAR	- 7	AIR TEM		`T	NO.		CIAL									
							COLOR		DIR.	SPEED	MET	R	DRY	WET C	VIS.   ODE ,	ÓBS. DEPTHS	OBSERV	A TIONS									
							CODE	(m)	_	FORCE	(mbs		nrs	-													
								1	07	S13	25	4 1	78	155	7	14											_
	MESSENG	CAST NO.	CAR		DEPTH (m)	Т	*c	5	٠	SIGM	A-T	SPECIFIC	VOLUN	7 UTN.	D M.		OCITY	02 ml			OTAL-P			NO3-4		р₩	5
	HP 1/10	1 NO.	TYP	ŧ								- 10.7		x 1	03	VELL	JC111		13.		- 10 - 64		J.	∠g = at 1	29 - U.		
				İ																							
			S	CT	0000	1	781	347	4	251	4	002	6335	301	00	15	156										
	19	0	06	S	0000		781	347		251							156										
	19	Ĵ.	05	5	0000		779	347	-	251							157										
			5	T D	0010		78Ū	347		251			8326				158										
				TD	0050		785	34		25			826				161										
				TD	0030		790	348		251		002	321	7 00	さり		165										
	19	Ü	0.5		0033		792	348		25		000	8049	9 31	4.1		166										
	10			T D	3050		820	349		25		002	10041	4 01	41		179										
	19				0051		821	349		251		0.0 5	8046	5 02	1 1		181										
				T)	0075		817	349		252		002	:0041	5 02	T I		182										
	19		06.		0080 0100		816 815	349		252 252		20.3	8000	5 02	۵ 1		185										
				TD				349		252		002	1004	5 02	0.1		184										
	19		-03		0103		812 751	348		25		0.03	2726	1 03	<b>6</b> 1		169										
				TD TD	0150		645	346		254			000				140										
	19	~	0.6		0156		614	346		25		002	.00 -1		1 '		131										
	19			5 TD	0200		295	341		25		003	2327	7 05	/ <sub>1</sub> 1		328										
	19		05		10200		249	340		25		0.02		, , ,			013										
	1 -	-		S TD	0250		145	34.		25		00:	087	1 00	51		985										
				T D	0300		528	34		26			1009		_		952										
	19		75		0314		997		00	26							943										
	-			TD	2400		816	340	12	26		0.0	608	2 04	24	14	886										
	19		03		T 242 U		778	34		26						14	877										
				TD	3500		644	34	. 3	26		201	1368	9 10	73	14	838										
				TD	0600		519	34.	. 5	26	ۋ ب	00!	1198	2 14	01	14	804										
	19		СB		0629		491		J70	269	9.7					14	797										
	-			CT	0700		461	34	16	2.7	3 %	00	10-5	2 13	14	14	798										
				CT	0630	Ū	423	34.	2.7	27.	2.5	00.	1947	8 14	15	14	8 Ú Ü										
	19	rt,	9.6		0338	0	410	34	308	27.	2.5					14	802										
			S	GT	0900	Э	393	34	3.5	2.7	30	000	3861	9 15	35	14	805										
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Woods Hole Oceanographic Institution
ATLAS - GAZZITEER COLLECTION

